Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Alder Lake	Alder Lake	LAL-1-LAL-2	14.28	Steep slopes (>= 40% slope): Yes, large areas along reach. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Five unnamed streams flow into Alder Lake. High groundwater hazard: No. Limited groundwater concern: Yes, almost entire reach. Hydric soils: Yes, in northern section of reach. Soil names: Scamman silty clay loam, 5 to 20% slopes (101), Rainier clay loam, 5 to 30% slopes (090), Mashel loam, 30 to 65% slopes (063), Mashel loam, 5 to 30% slopes (062), Pheeney-Rock outcrop complex, 65 to 90% slopes (083), Baumgard loam, 40 to 65% slopes (010), Baumgard loam, 10 to 40% slopes (009). Geologically sensitive area: No. Bedrock age: Pleistocene, Eocene, Miocene, lower. Lithology: Andesite flows, Alpine glacial drift, pre-Fraser, Basaltic andesite flows.	Reach may contain the following species: wood duck, bald eagle, osprey, common loon, resident cutthroat	Reach may contain the following habitats and site specifics: Wetlands (lake only), waterfowl concentrations. Reach is within the 100-year floodplain. Forest and shrub vegetation upslope of the lake is undeveloped.	Undeveloped, timber/forest land	LTF	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Alder Lake	Alder Lake	LAL-2-LAL-3	0.25	Steep slopes (>= 40% slope): Yes, primarily near the dam. Potential landslide area (>= 15% slope): Yes, much of reach. Surface hydrology: The east side of this reach touches the point where the Nisqually River drains Alder Lake. There is a dam at that point. High groundwater hazard: No. Limited groundwater concern: Yes, most of reach. Hydric soils: Yes, most of reach. Soil names: Scamman silty clay loam, 5 to 20% slopes (101), Pheeney-Rock outcrop complex, 40 to 65% slopes (082). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Alpine glacial drift, pre-Fraser.	Reach may contain the following species: wood duck, bald eagle, osprey, common loon, waterfowl species, resident cutthroat	Reach may contain the following habitats and site specifics: Wetlands (lake only), waterfowl concentrations. Reach is within the 100-year floodplain. Forest and shrub vegetation upslope of the lake is undeveloped.	Undeveloped, timber/forest land	LTF	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: yes (Alder Lake Dam), armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (dam); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach is located between northwestern inlet and spillway, and includes dam structures.
Bald Hill Lake	Bald Hill Lake	LBA-1-LBA-1	1.05	Steep slopes (>= 40% slope): Yes, large areas on the east side. Potential landslide area (>= 15% slope): Yes, around much of lake. Entire east side of lake. Surface hydrology: Associated wetlands. An unnamed stream flows into Bald Hill Lake from the east. High groundwater hazard: No. Limited groundwater concern: Yes, in a small area on the eastern side. Hydric soils: Yes. Soil names: Rainier-Rock outcrop complex, 20 to 40% slopes (092), Semiahmoo muck (104), Pheeney-Rock outcrop complex, 40 to 65% slopes (082), Baldhill very stony sandy loam, 30 to 60% slopes (008), Baldhill very stony sandy loam, 15 to 30% slopes (007), Baldhill very stony sandy loam, 3 to 15% slopes (006), Mukilteo muck, drained	Reach may contain the following species: wood duck, Taylor's checkerspot	Reach may contain the following habitats and site specifics: Wetlands area associated with lake, wood duck brooding habitat. Conifer-deciduous forest is located on the western shoreline of the lake. Reach is within the 100-year floodplain. Shoreline of the entire lake is heavily forested with no evidence of modification or development.	Undeveloped, timber/forest land	LTF, PP	None noted	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				(070), Indianola loamy sand, 3 to 15% slopes (047). Geologically sensitive area: No. Bedrock age: Pleistocene and Oligocene-Eocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Volcanic deposits or rocks.										
Clear Lake	Clear Lake	LCL-10-LCL-11	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, small area. Surface hydrology: The unnamed stream at north end of reach flows into Clear Lake. Remainder of reach associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in associated wetland. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006), Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial moraines, Fraser-age, Alluvium.	None noted	Reach may contain the following habitats and site specifics: Wetlands abut the north boundary of the reach. Vegetation is characterized as wetland emergent and shrub within the wetland and forest/shrub upslope of the wetland. Reach is primarily undeveloped with semi-private recreational facilities upslope of the wetland.	undeveloped, parks (semi-public)	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Clear Lake	Clear Lake	LCL-11-LCL-12	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, small areas. Surface hydrology: Entire reach associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in associated wetland. Soil names: Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age, Continental glacial outwash, gravel, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands abut the eastern boundary of the reach. Vegetation is emergent and shrub within the wetland and forest/shrub upslope of the wetland. Reach is primarily undeveloped.	undeveloped, parks (semi-public), residential	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Portions of this reach are owned by the Clearwood Community Association (semi-public park).
Clear Lake	Clear Lake	LCL-12-LCL-13	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Entire reach associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in associated wetland. Soil names: Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age, Continental glacial outwash, gravel, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands abut the north boundary of the reach. Vegetation is characterized as wetland emergent and shrub within the wetland and forest/shrub upslope of the wetland. Reach is primarily undeveloped.	undeveloped, parks (semi-public), residential	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Portions of this reach are owned by the Clearwood Community Association (semi-public park).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Clear Lake	Clear Lake	LCL-13-LCL-14	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, in small areas. Surface hydrology: Reach is entirely associated wetland. An unnamed stream flows through this reach and eventually into Clear Lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in associated wetland. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006), Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial moraines, Fraser-age, Alluvium.	None noted	Reach may contain the following habitats and site specifics: Wetlands abut the eastern and southern boundary of the reach. Vegetation is emergent and shrub within the wetland and forest/shrub upslope of the wetland. Reach is primarily undeveloped wetland.	undeveloped, residential	RL 2/1; RRR 1/5	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Clear Lake	Clear Lake	LCL-14-LCL-15	0.52	Steep slopes (>= 40% slope): Yes. Two large areas. Potential landslide area (>= 15% slope): Yes, much of reach. Surface hydrology: Associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands area associated with lake (mid reach). Reach is within the 100-year floodplain. Vegetation is emergent and shrub within the lake and forest/shrub upslope of the lake. Shoreline exhibits some residential use clearing, but is mostly forested.	undeveloped, residential, aquatic, recreation, semi-public park	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	Portions of this reach are owned by the Clearwood Community Association (semi-public park).
Clear Lake	Clear Lake	LCL-15-LCL-16	0.06	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Large associated open water wetland to east of Clear Lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Vegetation is emergent within the lake and forest/shrub upslope of the lake. Forest cover and residential clearing noted within this reach.	undeveloped, residential, recreation, semi-public park	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Clear Lake	Clear Lake	LCL-16-LCL-1	0.49	Steep slopes (>= 40% slope): Yes. Majority of reach. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Vegetation is emergent within the lake and forest/shrub upslope of the lake. Shoreline appears mostly forested, with some areas of clearing for residential use.	undeveloped, residential, recreation, aquatic	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Clear Lake	Clear Lake	LCL-1-LCL-2	0.36	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in associated wetland. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006), Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake shore) along the entire reach. 100-year floodplain (entire reach). Vegetation is submersed and emergent (along the lake edge) and forested/shrub upslope of the lake. Reach is primarily forested and used for recreation.	Recreational	RL 2/1	Rural	Semi-public access within the reach: swimming area with floating dock and boat launch.	Modifications: piers/docks/boat ramps: yes (4) , groins/jetties: no, culverts: no , dams: yes (Muskrat Dam), armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	Semi-public access along entire shoreline of Clearwood Community via unimproved trail - lot development approximately 100 feet upslope from shoreline. Majority of shoreline in natural condition.
Clear Lake	Clear Lake	LCL-2-LCL-3	0.63	Steep slopes (>= 40% slope): Yes, much of reach. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in associated wetland. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006), Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands are found along entire reach (lake shore) . The entire reach falls within the 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forested upslope of the lake to the residential properties. North portion of reach is primarily undeveloped and used for recreation.	Recreational	RL 2/1	Rural	Semi-public boat access near the north portion of the reach	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: yes (Beaver Dam), armoring: no, Facilities: roads: no, bridges: yes (1 foot bridge near midpoint of reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Clear Lake	Clear Lake	LCL-3-LCL-4	0.15	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands are found along entire reach (lake shore) . The entire reach falls within the 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forested upslope of the lake to the residential properties. Reach is primarily developed with singled-unit structures within approximately 200 feet of shoreline.	Recreational	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Clear Lake	Clear Lake	LCL-4-LCL-5	1.35	Steep slopes (>= 40% slope): Yes, large areas in reach. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in associated wetland. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006), Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands are found along entire reach (lake shore) . The entire reach falls within the 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forested upslope of the lake to the residential properties. Reach is primarily developed with singled-unit structures within approximately 200 feet of shoreline.	Recreational	RL 2/1	Rural	Semi-public boat access near midpoint of reach.	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no , dams: yes (2 - Muskrat Dam and Beaver Dam), armoring: no, Facilities: roads: no, bridges: yes (1 foot bridge), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (this reach may contain over 30% impervious surface); Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	An unimproved trail parallels edge of lake per aerial photo. Buildings with flooding history are within this reach.
Clear Lake	Clear Lake	LCL-5-LCL-6	0.29	Steep slopes (>= 40% slope): Yes, in small areas. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands are found along entire reach (lake shore) . The entire reach falls within the 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forested upslope of the lake to the residential properties. Reach is primarily developed with singled-unit structures within approximately 200 feet of shoreline.	recreational, undeveloped, residential	RL 2/1	Rural	Public access within the reach: launches (WDFW)	Modifications: piers/docks, boat ramps: yes (10) groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (reach may contain over 30% impervious surface); Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	Buildings with flooding history are within this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Clear Lake	Clear Lake	LCL-6-LCL-7	0.22	Steep slopes (>= 40% slope): Yes, in a small area. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands are found along entire reach (lake shore) . The entire reach falls within the 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forested upslope of the lake to the residential properties. Reach is primarily developed with singled-unit structures within approximately 200 feet of shoreline.	undeveloped, other, residential, recreation	RL 2/1	Rural	Semi-public boat access near north end of reach.	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	Buildings with flooding history are within this reach.
Clear Lake	Clear Lake	LCL-7-LCL-8	0.18	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, much of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands are found along entire reach (lake shore) . The entire reach falls within the 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forested upslope of the lake to the residential properties. Reach is primarily developed with singled-unit structures within approximately 200 feet of shoreline.	undeveloped, other, residential, recreation	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	Buildings with flooding history are within this reach.
Clear Lake	Clear Lake	LCL-8-LCL-9	0.73	Steep slopes (>= 40% slope): Yes, large areas of reach. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands are found along entire reach (lake shore) . The entire reach falls within the 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forested upslope of the lake to the residential properties. Reach is primarily developed with singled-unit structures within approximately 200 feet of shoreline.	undeveloped, aquatic, parks (semi-public)	RL 2/1	Rural	Semi-public boat access near south end and midpoint of reach.	Modifications: piers/docks/boat ramps: yes (8), groins/jetties: no, culverts: no, dams: no, armoring: yes, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Clear Lake	Clear Lake	LCL-9-LCL-10	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Most of reach. Surface hydrology: An unnamed stream flows into Clear Lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake shore) along the eastern portion of the reach before entering a small outlet channel. 100-year floodplain (east portion of reach). Vegetation is submersed and emergent (within the lake) and forested/shrub upslope of the lake to residential properties. Reach is primarily undeveloped with single-unit structures within approximately 200 feet of shoreline.	undeveloped, parks (semi-public)	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (1 - midpoint of reach, not mapped), dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Parcels within this reach are owned by the Clearwood Community Association.
Elbow Lake	Elbow Lake	LEL-1-LEL-2	2.27	Steep slopes (>= 40% slope): Yes, in large areas. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. Elbow Lake Creek drains from lake to the east, eventually joining Yelm Ditch. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in associated wetlands. Soil names: Baldhill very stony sandy loam, 15 to 30% slopes (007), Baldhill very stony sandy loam, 30 to 60% slopes (008),Baldhill very stony sandy loam, 3 to 15% slopes (006), Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: wood duck, loon, bald eagle, osprey, resident cutthroat	Reach may contain the following habitats and site specifics: Wetlands (lake only), wood duck brooding habitat. Reach is within the 100-year floodplain. Vegetation is emergent and shrub within the lake and forest upslope of the lake. This reach is largely undeveloped and unmodified.	undeveloped, timber/forest land	RRR 1/5, PP	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	This reach falls entirely within Elbow Lake Park. Elbow Lake is relatively undeveloped and considered to be in a natural setting and condition.
Elbow Lake	Elbow Lake	LEL-2-LEL-1	0.48	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 15 to 30% slopes (007). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: wood duck, loon, bald eagle, osprey, resident cutthroat	Reach may contain the following habitats and site specifics: Wetlands (lake only), wood duck brooding habitat. Reach is within the 100-year floodplain. Vegetation is emergent and shrub within the lake and forest upslope of the lake. There is some clearing of vegetation in the northwest corner of this reach, but the shoreline is otherwise heavily forested.	recreation, timber/forest land	RRR 1/5	Conservancy	None noted	Modifications: piers/docks: yes (4), groins/jetties: no, culverts: no , dams: no, armoring: yes (bulkheading), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Inman Lake/Gehrke Lake	LIN-1-LIN-2	0.88	Steep slopes (>= 40% slope): Yes, in small areas. Potential landslide area (>= 15% slope): Yes, frequent. Surface hydrology: Associated wetlands. Gehrke Lake is associated through the 100-year floodplain. An unnamed stream flows into Gehrke Lake and then into Inman Lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, within associated wetlands. Soil names: Alderwood gravelly sandy loam, 15 to 30% slopes (003), Mukilteo muck, drained (070), Everett very gravelly sandy loam, 3 to 15% slopes (033), Bald hill very stony sandy loam, 0 to 3% slopes (005). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands along the entire reach (includes lake and associated wetland), waterfowl concentrations. The entire reach falls within the 100-year floodplain. Vegetation is submersed and emergent (within lake) and emergent/shrub/forested upslope of the lake. Reach is primarily undeveloped forested land.	Residential, undeveloped, timber/forest land	RRR1/5	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (1 unpaved), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach appears to be in a natural condition, no apparent development waterward of shoreline.
McAllister Creek	Flanders Lake	LFL-1-LFL-1		Steep slopes (>= 40% slope): Yes Potential landslide area (>= 15% slope): No Surface hydrology: Associated wetlands. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Tenino gravelly loam, 15 to 30% slopes, Tenino gravelly loam, 3 to 15% slopes, Everett very gravelly sandy loam, 0 to 3% slopes (034), Mukilteo Muck, drained. Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: Western toad, Western bluebird, woodduck.	Reach may contain the following habitats and site specifics: Wetlands along the entire reach (includes lake and associated wetland), woodduck breeding habitat, prairie soils. Vegetation is submersed and emergent (within lake) and emergent/shrub/forested upslope of the lake.	Undeveloped	MR	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (one unpaved water access), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface:no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads may cause increased sediment supply, and reduction in habitat connectivity.	None noted	Flanders Lake is located entirely within Joint Base Lewis McChord.
Thompson Creek	Inman Lake/Gehrke Lake	LIN-2-LIN-1	0.23	Steep slopes (>= 40% slope): Yes, very small area. Potential landslide area (>= 15% slope): Yes, small area. Surface hydrology: Gerkhe Lake is associated with Inman Lake through the 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, within associated wetlands. Soil names: Alderwood gravelly sandy loam, 15 to 30% slopes (003). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands along the entire reach (includes lake and associated wetland), waterfowl concentrations. The entire reach falls within the 100-year floodplain. Vegetation is submersed and emergent (within lake) and emergent/shrub/forested upslope of the lake. Reach is primarily single-family residential.	Residential	RRR 1/5	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes (per arial photos), aquaculture: n/a, impervious surface:no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Residential home and apparent equipment buildings culminate the reach. A large dike is present in this reach.

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Mcallister Creek	Lake St Clair	LSC-10-LSC-11	0.63	Steep slopes (>= 40% slope): Yes, a large area. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. Eaton Creek flows into Lake Saint Claire. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Everett very gravelly sandy loam, 15 to 30% slopes (034), Everett very gravelly sandy loam, 3 to 15% slopes (033), Nisqually loamy fine sand, 0 to 3 % slopes (073). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age, Continental glacial outwash, sand, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands(lake only). Reach is within the 100-year floodplain. Vegetation appears to be submersed, emergent, and shrub from lake to shoreline with residential plantings and cleared areas and some forest cover throughout the shoreline.	Residential, undeveloped, timber/forest land	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (29), groins/jetties: no, culverts: no , dams: no, armoring: yes (bulkheads), Facilities: roads: yes (62 AVE SE), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (reach may exceed 30% impervious surface); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Mcallister Creek	Lake St Clair	LSC-11-LSC-12	0.35	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Vegetation appears to be submersed, emergent, and shrub from lake to shoreline and heavily forested cover throughout the shoreline.	Residential, undeveloped, timber/forest land	MGSA	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Mcallister Creek	Lake St Clair	LSC-12-LSC-13	0.47	Steep slopes (>= 40% slope): Yes, a large area. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Vegetation appears to be submersed, emergent, and shrub from lake to shoreline with residential and undeveloped natural areas upslope of the lake.	Residential, undeveloped	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

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Mcallister Creek	Lake St Clair	LSC-13-LSC-14	1.46	Steep slopes (>= 40% slope): Yes, scattered throughout. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Everett very gravelly sandy loam, 15 to 30% slopes (034). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Vegetation appears to be submersed, emergent, and shrub from lake to shoreline with residential clearings and plantings upslope of the lake.	Residential and undeveloped	MGSA	Rural, conservancy	None noted	Modifications: piers/docks/boat ramps: yes (59), groins/jetties: no, culverts: no , dams: no, armoring: yes (bulkheads), Facilities: roads: yes (1), bridges: yes (connects peninsula to land mass via Peninsula Dr SE) railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	None noted	None
Mcallister Creek	Lake St Clair	LSC-14-LSC-15	0.17	Steep slopes (>= 40% slope): Yes, a small area. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Everett very gravelly sandy loam, 15 to 30% slopes (034). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Shoreline is forested/cleared for forestry. An oak/conifer forest is found near the western end of the reach.	Undeveloped, forest/timber land, aquatic	MGSA	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Portions of this reach are utilized for forestry use, and may be forested or cleared as a result. The oak-conifer forest as mapped corresponds to areas that are characterized by forestry use.
Mcallister Creek	Lake St Clair	LSC-15-LSC-16	0.64	Steep slopes (>= 40% slope): Yes, a large area. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Everett very gravelly sandy loam, 15 to 30% slopes (034), Indianola loamy sand, 15 to 30% slopes (048), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Vegetation appears to be submersed, emergent, and shrub from lake to shoreline with residential clearings and plantings upslope of the lake.	Parks, residential, undeveloped	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (18), groins/jetties: no, culverts: no , dams: no, armoring: yes (bulkheads), Facilities: roads: yes (Glory Dr SE and Raccoon Valley Rd SE), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Mcallister Creek	Lake St Clair	LSC-16-LSC-17	0.03	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Everett very gravelly sandy loam, 3 to 15% slopes (033), Yelm fine sandy loam, 3 to 15% slopes (127). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Shoreline is forested.	Undeveloped, residential	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Mcallister Creek	Lake St Clair	LSC-17-LSC-1	1.38	Steep slopes (>= 40% slope): Yes, scattered throughout reach. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Everett very gravelly sandy loam, 3 to 15% slopes (033), Indianola loamy sand, 3 to 15% slopes (047), Yelm fine sandy loam, 3 to 15% slopes (127). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Vegetation appears to be submersed, emergent, and shrub from lake to shoreline with residential clearings and plantings upslope of the lake. This reach is characterized by significant residential use.	Undeveloped, residential	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (60), groins/jetties: no, culverts: no , dams: no, armoring: yes (bulkheads, Facilities: roads: yes (Thompson LN SE), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (this reach may exceed 30% impervious surface); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	None noted	None
Mcallister Creek	Lake St Clair	LSC-18-LSC-18	0.20	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Island mapped as wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. The shoreline of the island is entirely forested and appears unmodified.	Undeveloped	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Undeveloped island

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Mcallister Creek	Lake St Clair	LSC-19-LSC-19	0.26	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Island mapped as wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. The shoreline of the island is entirely forested and appears unmodified.	Residential	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no , dams: armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	None noted	None
Mcallister Creek	Lake St Clair	LSC-1-LSC-2	0.31	Steep slopes (>= 40% slope): Yes, a large area. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Indianola loamy sand, 3 to 15% slopes (047), Yelm fine sandy loam, 3 to 15% slopes (127), Everett very gravelly sandy loam, 15 to 30% slopes (034), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: western gray squirrel	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Shoreline appears heavily forested and unmodified.	Undeveloped, residential, timber/forest land	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Mcallister Creek	Lake St Clair	LSC-20-LSC-20	0.16	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Island mapped as wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. The shoreline of the island is entirely forested with minimal development.	Residential, undeveloped	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	None noted	None
Mcallister Creek	Lake St Clair	LSC-21-LSC-21	0.08	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Island mapped as wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. The shoreline of the island is forested with minimal development.	Residential	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Mcallister Creek	Lake St Clair	LSC-2-LSC-3	0.27	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Everett very gravelly sandy loam, 15 to 30% slopes (034), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: western gray squirrel	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Shoreline is characterized by residential plantings and cleared areas for residential use with some native trees upslope of the lake.	Undeveloped, residential	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (5), groins/jetties: no, culverts: no , dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	None noted	None
Mcallister Creek	Lake St Clair	LSC-3-LSC-4	0.26	Steep slopes (>= 40% slope): Yes, a small area. Potential landslide area (>= 15% slope): Yes. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Everett very gravelly sandy loam, 15 to 30% slopes (034), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake only), wood duck breeding habitat. Reach is within the 100-year floodplain. Shoreline is characterized by residential plantings and cleared areas for residential use with few native trees upslope of the lake.	Residential, aquatic	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (12), groins/jetties: no, culverts: no , dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (this reach may exceed over 30% impervious surface); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Mcallister Creek	Lake St Clair	LSC-4-LSC-5	0.37	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake only), wood duck breeding habitat. Reach is within the 100-year floodplain. Shoreline is mostly forested, with some areas exhibiting residential plantings and cleared areas.	Residential, aquatic, timber/forest land	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (11), groins/jetties: no, culverts: no , dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Mcallister Creek	Lake St Clair	LSC-5-LSC-6	0.71	Steep slopes (>= 40% slope): Yes, large areas. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 3 to 15% slopes (047), Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake only), wood duck breeding habitat. Reach is within the 100-year floodplain. Shoreline vegetation is emergent and submersed within the lake and undeveloped natural areas are located upslope of the lake.	Residential, aquatic, timber/forest land	MGSA	Rural, conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Mcallister Creek	Lake St Clair	LSC-6-LSC-7	2.80	Steep slopes (>= 40% slope): Yes, some large areas. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Everett very gravelly sandy loam, 30 to 50% slopes (035), Yelm fine sandy loam, 15 to 30% slopes (128), Indianola loamy sand, 15 to 30% slopes (048), Everett very gravelly sandy loam, 15 to 30% slopes (034), Indianola loamy sand, 3 to 15% slopes (047). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake only), wood duck breeding habitat. Reach is within the 100-year floodplain. Shoreline vegetation is emergent and submersed within the lake and undeveloped natural areas are located upslope of the lake.	Residential, aquatic, timber/forest land	MGSA	Rural, conservancy	Public access within the reach: launches (WDFW motorboat launch)	Modifications: piers/docks/boat ramps: yes (105), groins/jetties: no, culverts: no , dams: no, armoring: yes (bulkheads), Facilities: roads: yes (4)(Peninsula Dr SE, Ad El Rd SE, and Rehklau Rd SE, Sitkum Dr SE), bridges: yes (mid-reach to connect to peninsula under Peninsula Dr SE), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (reach may exceed 30% impervious surface); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Mcallister Creek	Lake St Clair	LSC-7-LSC-8	0.15	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Everett very gravelly sandy loam, 15 to 30% slopes (034), Indianola loamy sand, 3 to 15% slopes (047). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Vegetation appears to be submersed, emergent, and shrub from lake to shoreline with residential plantings and undeveloped natural areas upslope of the lake.	Residential, undeveloped	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Mcallister Creek	Lake St Clair	LSC-8-LSC-9	0.08	Steep slopes (>= 40% slope): Yes, small area. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes, in associated wetlands. Soil names: Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Reach is within the 100-year floodplain. Vegetation appears to be submersed, emergent, and shrub from lake to shoreline with undeveloped natural areas upslope of the lake.	Residential, undeveloped	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Mcallister Creek	Lake St Clair	LSC-9-LSC-10	0.21	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes, in associated wetlands. Soil names: Mukilteo muck (069), Indianola loamy sand, 3 to 15% slopes (047). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (extending to the south from lake). Reach is within the 100-year floodplain. Vegetation appears to be submersed, emergent, and shrub from lake to shoreline with undeveloped forested areas upslope of the lake.	Residential, undeveloped	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	None noted	The following species are found within Eaton Creek, which flows from Lake St Clair within this reach: kokannee, resident trout, resident cutthroat. They are not included under "species" because there no species explicitly mapped within the Lake.
Nisqually	Unknown Lake 3	LUNK3-1-LUNK3-2	0.63	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes,small areas. Surface hydrology: Associated wetlands. Yelm Ditch flows out of the lake. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes; Baldhill very stony sandy loam, 15 to 30% slopes; Norma silt loam; McKenna gravelly silt loam, 0 to 5% slopes; Everett very gravelly sandy loam, 0 to 3% slopes. Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age; Continental glacial outwash, gravel, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). The shoreline has scattered trees and has been cleared for agriculture (pasture).	Residential, aquatic, agriculture	RRR 1/5	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Loss of forest cover may reduce habitat availability and connectivity; reduce the amount of LWD and organic matter available to lake; reduce temperature maintenance; increase sediment transport; increased water contamination.	Restore riparian vegetation where it has been cleared by agriculture	None noted
Nisqually	Unknown Lake 3	LUNK3-2-LUNK3-3	0.10	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes,small areas. Surface hydrology: Associated wetlands. Unnamed stream flows into the lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: McKenna gravelly silt loam, 0 to 5% slopes; Baldhill very stony sandy loam, 0 to 3% slopes; Baldhill very stony	None noted	Reach may contain the following habitats and site specifics: Wetlands. The shoreline is forested with clearings from two roads.	Undeveloped, residential, aquatic	RRR 1/5	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (1 private), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no,	Roads may cause increased sediment supply, and reduction in habitat connectivity.	Restore riparian vegetation where it has been cleared by roads	None noted

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				sandy loam, 15 to 30% slopes. Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.							shellfish harvest ratings: n/a			
Nisqually	Unknown Lake 3	LUNK3-3-LUNK3-1	0.30	Steep slopes (>= 40% slope): Yes, small areas. Potential landslide area (>= 15% slope): Yes. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 15 to 30% slopes; Baldhill very stony sandy loam, 3 to 15% slopes. Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: The shoreline is forested with minimal fragmentation. Agricultural use (ranch) may impact understory.	Residential, agriculture	RRR 1/5	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agricultural land use may have impacted the riparian forest understory which may reduce understory habitat availability and connectivity; reduce the amount of organic matter available to lake; reduce temperature maintenance; increase sediment transport; and increased water contamination.	Restore riparian understory vegetation in locations where it has been cleared by agriculture land use.	None noted

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Indian Creek	Bigelow Lake	LBI-1-LBI-2	0.48	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Associated wetland around perimeter of ordinary high water mark. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Yelm fine sandy loam, 3 to 15% slopes (127), Yelm fine sandy loam, 0 to 3% slopes (126), Mukilteo muck, drained (070), Giles silt loam, 0 to 3% slopes (038). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: resident cutthroat, wood duck and green heron	Reach may contain the following habitats and site specifics: wetlands (lake) along the entire reach, wood duck breeding habitat. Vegetation is submersed and emergent within the wetland and shrub upslope of the wetland.	Undeveloped, residential	R-4, R-4-8	Not designated	Public access within the reach: roads (12th Ave NE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes , dams: no, armoring: no, Facilities: roads: yes, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity.	TCGDRS, 2007, ranked Henderson Wetland Site 174 as moderate restoration benefit.	None
Indian Creek	Bigelow Lake	LBI-2-LBI-3	0.16	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Mukilteo muck, drained (070); Norma silt loam (76); Giles silt loam, 0 to 3% slopes (038). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: wood duck breeding habitat. Pocket gopher soils. Vegetation is shrub within the wetland.	Undeveloped, residential	R-4	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Reduced shoreline vegetation may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	TCGDRS, 2007, ranked Henderson Wetland Site 174 and Henderson Floodplain site 11 as moderate restoration benefit.	None
Indian Creek	Bigelow Lake	LBI-3-LBI-4	1.09	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Norma silt loam (076), Yelm fine sandy loam, 3 to 15% slopes (127), Yelm fine sandy loam, 0 to 3% slopes (126), Mukilteo muck, drained (070), Indianola loamy sand, 3 to 15% slopes (47). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: resident cutthroat, wood duck	Reach may contain the following habitats and site specifics: wetlands, wood duck breeding habitat. 100-year floodplain. Vegetation is submersed and emergent within the wetland with residential planting and shrub upslope of the wetland.	Residential; Undeveloped	R-4, R-4-8	Not designated	Public access within the reach: roads (12th Ave NE)	Modifications: piers/docks/boat ramps: yes (6), groins/jetties: no, culverts: yes (associated with 12th Ave NE, 1 culvert, 0 barriers), dams: no, armoring: no, Facilities: roads: yes (2), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity.	TCGDRS, 2007, ranked Henderson Wetland Sites 174, 173,and 145, Henderson Floodplain site 11 and Henderson Riparian Sites 166, 167, as moderate restoration benefit.	None

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Indian Creek	Bigelow Lake	LBI-4-LBI-5	0.04	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Indian Creek drains Bigelow Lake to the south. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Yelm fine sandy loam, 3 to 15% slopes (127); Mukilteo muck, drained (70). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: Knotweed; Tansy ragwort;	Reach may contain the following habitats and site specifics: Vegetation is submersed and emergent within the wetland and shrub upslope of the wetland.	Residential; Undeveloped;	R-4-8	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a		TCGDRS, 2007, ranked Henderson Wetland Site 174 as moderate restoration benefit.	None
Indian Creek	Bigelow Lake	LBI-5-LBI-6	0.61	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Associated wetlands High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Yelm fine sandy loam, 3 to 15% slopes (127); Mukilteo muck, drained (70). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: Knotweed; Tansy ragwort;	Reach may contain the following habitats and site specifics: wetlands, 100-year floodplain. Vegetation is submersed and emergent within the wetland with fragmented forest cover, residential planting and shrub upslope of the wetland.	Residential; Undeveloped;	R-4, R-4-8	Not designated	12 Ave NE	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (associated with 12th Ave NE, 1 culvert, 0 barriers), dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity.	TCGDRS, 2007, ranked Henderson Wetland Site 174 as moderate restoration benefit.	None
Indian Creek	Bigelow Lake	LBI-6-LBI-1	0.14	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Associated wetlands High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Yelm fine sandy loam, 3 to 15% slopes (127); Mukilteo muck, drained (70). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: Knotweed; Tansy ragwort;	Reach may contain the following habitats and site specifics: wetlands. Vegetation is submersed and emergent within the wetland with fragmented forest cover upslope of the wetland.	Residential; Undeveloped;	R-4-8, R-6-12	Not designated	Chambers St. NE	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity.	TCGDRS, 2007, ranked Henderson Wetland Site 174 as moderate restoration benefit.	None
Chambers	Hewitt Lake	LHE-1-LHE-1	0.88	Steep slopes (>= 40% slope): Yes, around much of lake. Potential landslide area (>= 15% slope): Yes, majority of lakeshore. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Indianola loamy sand, 3 to 15% slopes (047), Indianola loamy sand, 0 to 3% slopes (046), Yelm fine sandy loam, 0 to 3% slopes (126), Nisqually loamy fine sand, 0 to 3% slopes (073). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake only). Vegetation is submersed and emergent within the lake developing into shrub and forest upslope of wetland including residential plantings.	Residential, undeveloped	R 4/8	Rural	None noted	Modifications: piers/docks/boat ramps: yes (23), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (Laura St SE, and Yelm Hwy), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Woodland	Hicks Lake	LHI-1-LHI-2	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, very little. Surface hydrology: Reach is entirely associated wetlands and 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Everett very gravelly sandy loam, 15 to 30% slopes (034), Mukilteo muck (069). Geologically sensitive area: Yes. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (along entire reach), wood duck breeding habitat. Entire reach within 100-year floodplain. Vegetation is wetland emergent and shrub.	Undeveloped, commercial, other	LDR 0-4	Conservancy	Public Access within this reach: government land (Mullen Rd Natural Area)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	Continue to function as a natural area.	Eastern half of reach is Mullen Rd Natural Area.
Woodland	Hicks Lake	LHI-3-LHI-4	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Reach is entirely associated wetlands and 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Mukilteo muck (069). Geologically sensitive area: Yes. Bedrock age: Holocene. Lithology: Alluvium.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (along entire reach), wood duck breeding habitat. Entire reach within 100-year floodplain. Vegetation is wetland emergent and shrub.	Undeveloped and residential	LDR 0-4	Conservancy	Public Access within this reach: government land (Mullen Rd Natural Area)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	Continue to function as a natural area.	Eastern portion of reach is Mullen Rd Natural Area.
Woodland	Hicks Lake	LHI-5-LHI-6	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, very small area. Surface hydrology: Reach is entirely associated wetlands and 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Mukilteo muck (069). Geologically sensitive area: Yes. Bedrock age: Holocene. Lithology: Alluvium.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (along entire reach), wood duck breeding habitat. Entire reach within 100-year floodplain. Vegetation is wetland emergent and shrub.	Undeveloped, residential, other-cultural	LDR 0-4	Conservancy	Public Access within this reach: government land (Mullen Rd Natural Area)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	Continue to function as a natural area.	Western portion of reach is Mullen Rd Natural Area.

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Woodland	Hicks Lake	LHI-6-LHI-1	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Reach is entirely associated wetlands and 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Mukilteo muck (069), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: Yes. Bedrock age: Pleistocene and Holocene. Lithology: Alluvium, Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (along entire reach), wood duck breeding habitat. Entire reach within 100-year floodplain. Vegetation is wetland emergent and shrub.	Undeveloped, residential, other-cultural	LDR 0-4	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Lake Lawrence	Lake Lawrence	LLA-1-LLA-2	0.86	Steep slopes (>= 40% slope): Yes, one extremely small area. Potential landslide area (>= 15% slope): Yes, small areas on edge of associated wetland. Surface hydrology: Large associated wetland in southern half of reach. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Mukilteo muck, drained (070), Baldhill very stony sandy loam, 15 to 30% slopes (007), Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Alluvium.	Reach may contain the following species: great blue heron, resident cutthroat	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, waterfowl overwintering habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forest upslope of wetland.	Agriculture, residential, undeveloped	RRR 1/5, PP, LTA	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (TP), contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Lake Lawrence	Lake Lawrence	LLA-2-LLA-3	0.24	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Alluvium, Continental glacial till, Fraser-age.	Reach may contain the following species: resident cutthroat	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, waterfowl overwintering habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forest upslope of wetland.	Recreational, parks	PP	Rural	Public Access within reach: parks (Lake Lawrence Park)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	Continue to function as a park.	None

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Lake Lawrence	Lake Lawrence	LLA-3-LLA-4	2.44	Steep slopes (>= 40% slope): Yes, in areas. Potential landslide area (>= 15% slope): Yes, throughout reach. Surface hydrology: Associated wetlands. An unnamed stream drains Lake Lawrence and flows into the Deschutes River. Control structure at outlet of lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Mukilteo muck, drained (070), Baldhill very stony sandy loam, 3 to 15% slopes (006), Cagey loamy sand (020), Indianola loamy sand, 3 to 15% slopes (047). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Alluvium, Continental glacial till, Fraser-age, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: resident cutthroat, coho, searun cutthroat and winter steelhead	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, waterfowl overwintering habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake shrub and forest upslope of wetland intermixed with residential plantings.	Residential, undeveloped	PP, RL 2/1, LTA	Rural	Public Access within reach: launches (WDFW), roads (Lake Point Drive DW and Pleasant Beach Drive SE)	Modifications: piers/docks/boat ramps: yes (83), groins/jetties: no, culverts: yes (1) , dams: (Lake Lawrence control structure), armoring: no, Facilities: roads: yes (2), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (parking); Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	The Lake Lawrence outlet has a control structure to control the lake level. This structure also acts as a fish passage barrier (IS). There is a culvert downstream from this barrier.
Lake Lawrence	Lake Lawrence	LLA-4-LLA-5	0.15	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Mukilteo muck, drained (070), Cagey loamy sand (020), Norma fine sandy loam (075). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: resident cutthroat	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, waterfowl overwintering areas. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forest upslope of wetland intermixed with residential plantings.	Residential, undeveloped , other-cultural	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: yes 5), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Lake Lawrence	Lake Lawrence	LLA-5-LLA-6	0.71	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Mukilteo muck, drained (070), Indianola loamy sand, 3 to 15% slopes (047), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Continental glacial till, Fraser-age.	Reach may contain the following species: resident cutthroat	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, waterfowl overwintering areas. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forest upslope of wetland intermixed with residential plantings.	Residential, undeveloped , other-cultural	RL 2/1, RL 1/2	Rural	None noted	Modifications: piers/docks/boat ramps: yes (28), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Lake Lawrence	Lake Lawrence	LLA-6-LLA-1	0.33	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), McKenna gravelly silt loam, 0 to 5% slopes (065). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Continental glacial till, Fraser-age.	Reach may contain the following species: resident cutthroat	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, waterfowl overwintering areas. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forest upslope of wetland intermixed with residential plantings.	Residential, undeveloped	RRR 1/5	Rural	None noted	Modifications: piers/docks/boat ramps: yes (10), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	None noted	None
Lake Lawrence	Lake Lawrence	LLA-7-LLA-7	0.17	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Unknown (mapped as water). Lithology: Unknown (mapped as water).	Reach may contain the following species: resident cutthroat	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, waterfowl overwintering areas. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forest upslope of wetland intermixed with residential plantings.	Undeveloped	RRR 1/5	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Lake Lawrence	Lake Lawrence	LLA-8-LLA-8	0.85	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: resident cutthroat, waterfowl species	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, waterfowl overwintering areas. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake and shrub/forest upslope of wetland intermixed with residential plantings.	Undeveloped	RL 2/1	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Woodland	Long Lake	LLO-10-LLO-11	0.33	Steep slopes (>= 40% slope): Yes, small area. Potential landslide area (>= 15% slope): Yes, southern half of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Mukilteo muck (069), Everett very gravelly sandy loam, 15 to 30% slopes (034), Indianola loamy sand, 3 to 15% slopes (047). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: largemouth bass, rainbow trout	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (lake only). Vegetation is submersed and emergent within the lake, becoming residential plantings upslope from the lake. Shoreline vegetation is fragmented, comprised largely of residential plantings, with no natural stands of vegetation present.	Residential, undeveloped	LD 0-4	Rural	None noted	Modifications: piers/docks/boat ramps: yes (19), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	TCGDRS, 2007 ranked Wetland 167 as high restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Woodland	Long Lake	LLO-12-LLO-13	0.31	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Small area. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Nisqually loamy fine sand, 3 to 15% slopes (074), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: largemouth bass, rainbow trout	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (lake only). Vegetation is submersed and emergent within the lake, becoming residential plantings upslope from the lake. Shoreline vegetation is entirely made up of residential plantings, with no natural stands of vegetation present.	Residential, parks, aquatic	LD 0-4	Rural	Public access within the reach: roads (Boat Launch St SE), launches (WDFW motor boat launch; private launch)	Modifications: piers/docks/boat ramps: yes (21), groins/jetties: no, culverts: yes (there is one NDC culvert associated with Holmes Ct SE within jurisdiction but not with the lake proper) dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures, pavement); Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	TCGDRS, 2007 ranked Wetland 167 as moderate restoration benefit.	None
Woodland	Long Lake	LLO-14-LLO-15	1.53	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, primarily in southern half of reach. Surface hydrology: Small associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Mukilteo muck (069). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck, largemouth bass, rainbow trout	Reach may contain the following habitats and site specifics: wetlands and associated buffers (lake only), wood duck breeding areas. This reach is entirely within the 100 yr floodplain. Vegetation is submersed and emergent within the lake, becoming residential plantings upslope from the lake. Shoreline vegetation is entirely made up of residential plantings, with no natural stands of vegetation present.	Residential	LD 0-4	Rural	Public access within the reach: roads (Holmes Island Rd SE)	Modifications: piers/docks/boat ramps: yes (63) (See also notes column), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (bridge is associated with Holmes Island Rd SE, which connects the mainland to Holmes Island within this reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures, pavement); Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list).	TCGDRS, 2007 ranked Henderson Wetland 167 as moderate to moderate-high restoration benefit.	There is a mapped boat launch but it was not confirmed with the 2006 aerial photograph. Several roads cross the Thurston County jurisdiction polygon but do not offer direct access to Long Lake.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Woodland	Long Lake	LLO-15-LLO-1	0.23	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Associated wetlands. Woodland Creek runs through this reach, draining Long Lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Xerorthents, 0 to 5% slopes (125), Alderwood gravelly sandy loam, 0 to 3% slopes (001), Mukilteo muck (069). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck, largemouth bass, rainbow trout	Reach may contain the following habitats and site specifics: wetlands and associated buffers extending north from the creek input to Long Lake), wood duck breeding areas. This reach is entirely within the 100 yr floodplain. Vegetation is submersed and emergent within the lake, becoming residential plantings upslope from the lake. Shoreline vegetation is largely wetland shrub-scrub, emergent plants, or forest cover, though the southern portion of the reach appears to contain some residential plantings.	Residential, undeveloped	MD, LD 0-4	Rural	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no,, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	Parts of this reach are within City of Lacey jurisdiction.
Woodland	Long Lake	LLO-16-LLO-16	0.12	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: largemouth bass, rainbow trout	Reach may contain the following habitats and site specifics: wetlands (lake only). Vegetation is submersed and emergent within the surrounding areas of the lake. The island itself is characterized by upland wetland vegetation with no structures or buildings.	Undeveloped	LD 0-4	Rural	None noted	Modifications: piers/docks /boat ramps : no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Woodland	Long Lake	LLO-17-LLO-17	0.53	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: largemouth bass, rainbow trout	Reach may contain the following habitats and site specifics: wetlands and associated buffers (lake only), wood duck breeding areas. Vegetation is submersed and emergent within the lake, becoming residential plantings upslope from the lake. Shoreline vegetation is entirely made up of residential plantings, with no natural stands of vegetation present.	Residential	LD 0-4	Rural	Public access within the reach: roads (Holmes Island Rd SE)	Modifications: piers/docks: yes (numerous), boat ramps: no (26), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (bridge is associated with Holmes Island Rd SE, which connects the mainland to Holmes Island within this reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures, pavement); Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list).	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Woodland	Long Lake	LLO-1-LLO-2	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, extremely small area. Surface hydrology: Associated wetlands. Woodland Creek runs through this reach, draining Long Lake to the north. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes, entire reach. Soil names: Mukilteo muck (069), Alderwood gravelly sandy loam, 0 to 3% slopes (001), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Bellingham silty clay loam (014), Spanaway gravelly sandy loam, 0 to 3% slopes (110). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (along entire reach), wood duck nesting and breeding habitat. Entire reach within 100-year floodplain. Oak-conifer forest/woodland canopy is present within this reach. Vegetation is submersed and emergent within the lake, becoming emergent and shrub on the south portion of the reach with forest, shrub, and herbaceous areas upslope of the wetland/lake edge.	Parks, commercial-industrial	OSI	Rural	Public access within the reach: parks (Woodland Creek Park)	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: yes (south end of reach), marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures and parking); Water quality: 303(d) list: yes (temp - Woodland Creek), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity. Water quality within this reach is impacted (Ecology 303d list).	TCGDRS, 2007, ranked Henderson Floodplain sites 2 and 25, Riparian sites 116 and 17, and Wetland sites 235 and 161 as high-moderate restoration benefit.	None
Woodland	Long Lake	LLO-2-LLO-3	J.O.	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Associated wetlands. Woodland Creek runs through this reach, draining Long Lake to the north. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, entire reach. Soil names: Mukilteo muck (069), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Bellingham silty clay loam (014). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (along entire reach), wood duck nesting and breeding habitat. Entire reach is within 100-year floodplain. Oak-conifer forest/woodland canopy is present within this reach. Vegetation is submersed and emergent within the lake, becoming emergent and shrub on the south portion of the reach with forest, shrub, and herbaceous areas upslope of the wetland/lake edge.	Residential, cultural, commercial-industrial	OSI, LDR 0-4	Rural	Public access within the reach: parks (Woodland Creek Park)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (temp in Woodland Creek), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	TCGDRS, 2007, ranked Henderson Floodplain sites 2 and 1, Riparian site 17, and Wetland site 235 as high-moderate restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Woodland	Long Lake	LLO-3-LLO-4	0.50	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, small areas. Surface hydrology: Associated wetlands. Woodland Creek runs through this reach, draining Long Lake to the north. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, northern half of reach. Soil names: Mukilteo muck (069), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Indianola loamy sand, 3 to 15% slopes (047), Spana gravelly loam (109). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck, largemouth bass, rainbow trout.	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (along entire reach), wood duck breeding areas. Oak-conifer forest/woodland canopy is present within this reach. Entire reach is within 100-year floodplain. Vegetation is submersed and emergent within the lake, becoming shrub and forest upslope of the wetland/lake edge.	open space, commercial, industrial, other	LI, MD	rural	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: yes (1 at railroad crossing of woodland Creek), railroads: yes (north end of reach), marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity. Water quality within this reach is impacted (Ecology 303d list).	TCGDRS, 2007, ranked Henderson Floodplain sites 1 and 20 as high-moderate or moderate restoration benefit. Wetland site 234 and 167 were ranked as either high-moderate or low restoration benefit.	None
Woodland	Long Lake	LLO-4-LLO-5	2.01	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, small area in southern section of reach. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Indianola loamy sand, 3 to 15% slopes (047), Indianola loamy sand, 15 to 30% slopes (111), Spana gravelly loam (109), Nisqually loamy fine sand, 3 to 15% slopes (074), Everett very gravelly sandy loam, 3 to 15% slopes (033), Everett very gravelly sandy loam, 15 to 30% slopes (034), Mukilteo muck, drained (070). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck, largemouth bass, rainbow trout	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (along entire reach), wood duck breeding areas. Oak-conifer forest/woodland canopy is present within this reach. Entire reach is within 100-year floodplain. Vegetation is submersed and emergent within the lake, becoming residential plantings from the wetland/lake edge.	Residential, undeveloped, open space	MD, LD 0-4	Rural	None noted	Modifications: piers/docks:/boat ramps: yes (82), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures, parking); Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	TCGDRS, 2007, ranked Henderson Floodplain site 20 as ranging from low to high-moderate restoration benefit. Wetland site 167 ranked as moderate to high-moderate restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Woodland	Long Lake	LLO-5-LLO-6	0.12	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, small area. Surface hydrology: Large associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, entire reach. Soil names: Mukilteo muck (069), Everett very gravelly sandy loam, 3 to 15% slopes (033), Everett very gravelly sandy loam, 15 to 30% slopes (034). Geologically sensitive area: Yes. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial drift, Fraser-age, Alluvium.	Reach may contain the following species: wood duck, largemouth bass, rainbow trout	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (a large wetland associated with Long Lake originates here and protrudes south to Mullen Rd), wood duck breeding areas. Oak-conifer forest/woodland canopy is present on the eastern half of this reach. The entire reach is within 100-year floodplain. Vegetation is submersed and emergent within the lake, becoming shrub and forest landward from the lake.	Residential, undeveloped	LD 0-4	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	TCGDRS, 2007 ranked wetland sites 247, 249 and 167 a range of low to high environmental benefits. Riparian site 19 was ranked low for environmental benefit.	None
Woodland	Long Lake	LLO-6-LLO-7	0.55	Steep slopes (>= 40% slope): Yes, extremely small area. Potential landslide area (>= 15% slope): Yes, small area. Surface hydrology: Large associated wetland. An unnamed stream flows into Long Lake from Pattison Lake in this reach. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in associated wetlands. Soil names: Mukilteo muck (069), Everett very gravelly sandy loam, 3 to 15% slopes (033), Everett very gravelly sandy loam, 15 to 30% slopes (034). Geologically sensitive area: Yes. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial drift, Fraser-age, Alluvium.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (entire reach), wood duck breeding areas. The entire reach is within 100-year floodplain. Shoreline vegetation is fragmented, comprised largely of residential plantings, with little natural stands of vegetation present.	Residential, undeveloped	LD 0-4	Conservancy	None noted	Modifications: piers/docks:/boat ramps: yes (25), grois/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	TCGDRS, 2007 ranked wetland sites 247 and 249 as a range of low to high restoration benefits. Riparian site 19 was ranked high for restoration benefit.	None
Woodland	Long Lake	LLO-8-LLO-9	0.55	Steep slopes (>= 40% slope): Yes, small area. Potential landslide area (>= 15% slope): Yes, much of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Mukilteo muck (069), Everett very gravelly sandy loam, 3 to 15% slopes (033), Everett very gravelly sandy loam, 15 to 30% slopes (034). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck, largemouth bass, rainbow trout	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (lake only), wood duck breeding areas. Vegetation is submersed and emergent within the lake, becoming residential plantings upslope from the lake. Shoreline vegetation is fragmented, comprised largely of residential plantings, with no natural stands of vegetation present.	Residential, undeveloped	LD 0-4	Rural	None noted	Modifications: piers/docks:/boat ramps: yes (29), grois/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures, parking); Water quality: 303(d) list: yes (PCB, 2,3,7,8,-TCDD, total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	TCGDRS, 2007 ranked Wetland 167 as moderate-high restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Mcintosh Lake	Mcintosh Lake	LMC-1-LMC-2	1.24	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, in areas. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Cathart gravelly loam, 15 to 35% slopes (022), Cathart gravelly loam, 3 to 15% slopes (021). Geologically sensitive area: No. Bedrock age: Eocene, middle to upper. Lithology: Marine sedimentary rocks.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to residential plantings upslope of wetland.	Residential, undeveloped, recreational	RL 1/2	Rural	Public access within reach: launches (WDFW boat launch)	Modifications: piers/docks/boat ramps: yes (44), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (Cedarwood Drive SE), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Mcintosh Lake	Mcintosh Lake	LMC-2-LMC-3	0.53	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, in areas. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes, majority of reach. Soil names: Cathart gravelly loam, 3 to 15% slopes (021), Semiahmoo muck (104), Everett very gravelly sandy loam, 3 to 15% slopes (033), Indianola loamy sand, 3 to 15% slopes (037), Baldhill very stony sandy loam, 3 to 15% slopes (006), Norma silt loam (076). Geologically sensitive area: No. Bedrock age: Eocene, middle to upper, Holocene, Pleistocene. Lithology: Marine sedimentary rocks, Gabbro, Alluvium, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (entire reach, including a wetland complex to the northeast), wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake shrub and forest upslope of wetland.	Recreational, undeveloped, residential, timber/ forest land	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (Military Road SE), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Mcintosh Lake	Mcintosh Lake	LMC-3-LMC-4	0.36	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes, majority of reach. Soil names: Baldhill very stony sandy loam, 0 to 3% slopes (005), Semiahmoo muck (104). Geologically sensitive area: No. Bedrock age: Holocene. Lithology: Alluvium.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to residential plantings upslope of wetland.	Residential and undeveloped	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (4), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Mcintosh Lake	Mcintosh Lake	LMC-4-LMC-5	0.31	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, very small area. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, majority of reach. Soil names: Norma silt loam (076), Baldhill very stony sandy loam, 0 to 3% slopes (005). Geologically sensitive area: No. Bedrock age: Holocene. Lithology: Alluvium.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to residential plantings upslope of wetland.	Residential, undeveloped, timber/forest land	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	None

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Mcintosh Lake	Mcintosh Lake	LMC-5-LMC-1	1.00	Steep slopes (>= 40% slope): Yes, in large areas. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Norma silt loam (076), Baldhill very stony sandy loam, 0 to 3% slopes (005), Melbourne silty clay loam, 40 to 65% slopes (048), Melbourne silty clay loam, 20 to 40% slopes (068), Cathart gravelly loam, 3 to 15% slopes (021). Geologically sensitive area: No. Bedrock age: Eocene, middle to upper, Holocene, Pleistocene. Lithology: Alluvium, Marine sedimentary rocks, Gabbro, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to residential plantings upslope of wetland.	Undeveloped, recreation	RRR 1/5	Conservancy, rural	County Trail	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	The Yelm to Tenino County Trail parallels the lake for the majority of this reach.
Deschutes River	Munn Lake	LMU-1-LMU-2	0.56	Steep slopes (>= 40% slope): Yes, small area. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Indianola loamy sand, 0 to 3 % slopes (046), Nisqually loamy fine sand, 0 to 3% slopes. Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (along entire reach), wood duck brooding habitat. Entire reach within 100-year floodplain. Vegetation is submersed and emergent within the lake, becoming shrub and forest along upland edge of wetland.	Undeveloped, aquatic, other residential	GB, R 4/7	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Deschutes River	Munn Lake	LMU-2-LMU-1	1.39	Steep slopes (>= 40% slope): Yes, small area. Potential landslide area (>= 15% slope): Yes, patchy areas throughout reach. Surface hydrology: Associated wetlands. An unnamed stream flows between Susan Lake and Munn Lake. An unnamed stream flows between Trails End Lake and Munn Lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Indianola loamy sand, 3 to 15% slopes (047), Indianola loamy sand, 0 to 3 % slopes (046), Nisqually loamy fine sand, 0 to 3% slopes, Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (along entire reach), wood duck brooding habitat. Entire reach within 100-year floodplain. Vegetation is submersed and emergent within the lake, becoming shrub and forest along upland edge of wetland.	Undeveloped, water areas, other residential	GB, R 4-7, OS, R 6-9	Conservancy	Public access within the reach: launches (WDFW boat launch)	Modifications: piers/docks (several), boat ramps (1): yes (15), groins/jetties: no, culverts: no , dams: no, armoring: yes, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Offut Lake	Offut Lake	LOF-1-LOF-2	0.44	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Spanaway gravelly sandy loam, 3 to 15% slopes (111). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: resident cutthroat, wood duck, bald eagle	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to oak-conifer forest area upslope of wetland.	Undeveloped, residential, timber/forest land	RR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Offut Lake	Offut Lake	LOF-2-LOF-3	0.99	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Spanaway gravelly sandy loam, 3 to 15% slopes (111), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: resident cutthroat, wood duck, bald eagle	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to oak-conifer forest area upslope of wetland.	Undeveloped, residential	RR 1/5, RL 2/1	Conservancy (south end of reach); rural (remainder of reach)	Public access within the reach: launches (WDFW boat launch)	Modifications: piers/docks/boat ramps: yes (38), groins/jetties: no, culverts: no , dams: no, armoring: yes, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures and roads); Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list). Loss of vegetative cover may alter hydrology and sediment processes.	None noted	None
Offut Lake	Offut Lake	LOF-3-LOF-4	0.53	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, very small areas. Surface hydrology: Large associated wetland and 100-year floodplain. An unnamed stream drains Offut Lake to the Deschutes River. An unnamed stream flows into Offut Lake. High groundwater hazard: No. Limited groundwater concern: Yes, small area at east end of 100-year floodplain, close to the Deschutes River. Hydric soils: Yes, majority of reach. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Godfrey silty clay loam (041), Newberg loam (072), Mukilteo muck (069). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial moraines, Fraser-age, Alluvium, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: resident cutthroat, wood duck, beaver	Reach may contain the following habitats and site specifics: Wetlands (along entire reach, extending east), wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to oak-conifer forest area upslope of wetland.	Residential and undeveloped	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (5), groins/jetties: no, culverts: no, dams: no, armoring: yes, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	None noted	There is a fish passage barrier (IS) within this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Offut Lake	Offut Lake	LOF-4-LOF-5	0.91	Steep slopes (>= 40% slope): Yes, small areas. Potential landslide area (>= 15% slope): Yes, much of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial moraines, Fraser-age, Alluvium, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: resident cutthroat, wood duck, bald eagle	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to urban oak-conifer forest area upslope of wetland and near west end of reach. Majority of reach is dominated by residential plantings.	Residential, undeveloped	RL 1/1	Rural, conservancy	None noted	Modifications: piers/docks/boat ramps: yes (23), groins/jetties: no, culverts: yes, dams: yes, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Offut Lake	Offut Lake	LOF-5-LOF-1	0.07	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Large associated wetland. An unnamed wetland flows into Offut Lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, majority of reach. Soil names: Mukilteo muck (069), Everett very gravelly sandy loam, 15 to 30% slopes (034), Spanaway gravelly sandy loam, 3 to 15% slopes (111). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: resident cutthroat, wood duck, bald eagle	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to urban oak-conifer forest area upslope of wetland and near west end of reach.	Undeveloped	RRR 1/5	Rural, conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Offut Lake	Offut Lake	LOF-6-LOF-6	0.09	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial moraines, Fraser-age.	Reach may contain the following species: resident cutthroat, wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding habitat. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to urban oak-conifer forest area upslope of wetland and near west end of reach.	Undeveloped	RL 1/1	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Woodland	Pattison Lake	LPA-2-LPA-3	1.45	Steep slopes (>= 40% slope): Yes, very little. Potential landslide area (>= 15% slope): Yes. Surface hydrology: 100-year floodplain and associated wetland. Unnamed stream flows out of Lake Pattison. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes, in associated wetland and flood zone. Soil names: Everett very gravelly sandy loam, 15 to 30% slopes (034), Everett very gravelly sandy loam, 3 to 15% slopes (033), Nisqually loamy fine sand, 0 to 3% slopes (073), McKenna gravelly silt loam, 0 to 5% slopes (065), Shalcar variant muck (106). Geologically sensitive area: Yes. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial outwash, sand, Fraser-age, Continental glacial drift, Fraser-age, Alluvium, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding habitat. Entire reach within 100-year floodplain. Vegetation is submersed and emergent within the wetland with residential plantings upslope of the wetland.	Residential	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (57), groins/jetties: no, culverts: yes (a culvert is associated with Mullen Rd SE, 1 culvert, no barriers), dams: no, armoring: yes, Facilities: roads: no (see Notes column), bridges: no, railroads: yes (1), marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (this reach may contain over 30% impervious surface); Water quality: 303(d) list: yes (Total Phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	A culvert is located below Mullen Rd SE at the northern portion of the lake, which appears to connect the lake to an associated wetland. The culvert and road are within jurisdiction, but do not offer direct access to the lake.
Woodland	Pattison Lake	LPA-3-LPA-4	0.37	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, a small area. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Mukilteo muck (069). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: wetlands (lake only), wood duck breeding habitat and waterfowl concentrations. Entire reach within 100-year floodplain. Vegetation is submersed and emergent within the wetland with residential plantings upslope of the wetland.	Residential	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (26), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Woodland	Pattison Lake	LPA-4-LPA-5	0.21	Steep slopes (>= 40% slope): Yes, very little. Potential landslide area (>= 15% slope): Yes, one large area. Surface hydrology: An unnamed stream flows out of Lake Pattison amid extensive associated wetland and 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, majority of reach is hydric soils in the flood plain and associated wetlands. Soil names: Mukilteo muck (069), Indianola loamy sand, 3 to 15% slopes (047), Everett very gravelly sandy loam, 15 to 30% slopes (034), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: Yes. Bedrock age: Primarily Holocene with a small area of Pleistocene. Lithology: Primarily Alluvium, with some Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (along entire reach, extending north) wood duck breeding habitat, waterfowl concentrations. Entire reach within 100-year floodplain. Vegetation is emergent and shrub within the wetland and shrub upslope from the wetland.	Undeveloped	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Woodland	Pattison Lake	LPA-5-LPA-6	0.25	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 3 to 15% slopes (047), Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: Yes. Bedrock age: Primarily Pleistocene with a small area of Holocene. Lithology: Continental glacial outwash, sand, Fraser-age, Alluvium.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake only) wood duck breeding habitat, waterfowl concentrations. Entire reach within 100-year floodplain. Vegetation is emergent and shrub within the wetland and shrub upslope from the wetland.	Residential, undeveloped, recreation	MGSA	Rural	Public Access within reach: launches (WDFW)	Modifications: piers/docks/boat ramps: yes (12), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Woodland	Pattison Lake	LPA-6-LPA-7	0.30	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, a small area. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Mukilteo muck, drained (070). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: wood duck, bald eagle	Reach may contain the following habitats and site specifics: Wetlands (lake only) wood duck breeding habitat, waterfowl concentrations. Entire reach within 100-year floodplain. Vegetation is emergent and shrub within the wetland and shrub upslope from the wetland.	Residential, undeveloped	MGSA	Rural, conservancy	None noted	Modifications: piers/docks/boat ramps: yes (8), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Woodland	Pattison Lake	LPA-7-LPA-8	0.27	Steep slopes (>= 40% slope): Yes, very small area. Potential landslide area (>= 15% slope): Yes, southern portion of reach. Surface hydrology: 100-year floodplain and large associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in large associated wetland. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Indianola loamy sand, 0 to 3% slopes (046), Mukilteo muck, drained (070), Norma silt loam (076). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: wood duck, bald eagle	Reach may contain the following habitats and site specifics: Wetlands (lake only) wood duck breeding habitat, waterfowl concentrations. Entire reach within 100-year floodplain. Vegetation is emergent and shrub within the wetland and shrub upslope from the wetland.	Undeveloped, open space, residential	MGSA	Rural, conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Woodland	Pattison Lake	LPA-8-LPA-1	1.29	Steep slopes (>= 40% slope): Yes, majority of reach. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Indianola loamy sand, 0 to 3% slopes (046). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: bald eagle	Reach may contain the following habitats and site specifics: Wetlands (lake only) wood duck breeding habitat, conifer-deciduous forest. Entire reach within 100-year floodplain. Vegetation is emergent and shrub within the wetland and shrub upslope from the wetland.	Residential, undeveloped	MGSA	Rural	Semi-public access is available through park (South Cove Homeowners Community Space) near east portion of reach.	Modifications: piers/docks/boat ramps: yes (40), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (total phosphorous), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	Oak-conifer forest is mapped but is not confirmed via 2006 aerial photograph.
Reichel Lake	Reichel Lake	LRE-1-LRE-2	0.50	Steep slopes (>= 40% slope): Yes, in large areas. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. Unnamed (class 3) stream drains Reichel Lake via a large wetland and ultimately to the Deschutes River. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Mukilteo muck, drained (070), Baldhill very stony sandy loam, 0 to 3% slopes (005), Rock outcrop-Pheeney complex, 40 to 90% slopes (096), Pheeney gravelly loam, 5 to 30% slopes (079), McKenna gravelly silt loam, 0 to 5% slopes (065). Geologically sensitive area: No. Bedrock age: Pleistocene and Eocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Andesite flows, Continental glacial till, Fraser-age.	Reach may contain the following species: searun cutthroat, winter steelhead, wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding and waterfowl overwintering habitat. Reach is an emergent wetland. Northern portion of reach is within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake, developing into shrub and forest upslope of wetland.	Timber/Forest land	LTF	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (1 unpaved logging road), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Surrounding parcels are zoned for forestry use. As a result, shorelines may be heavily forested or clear cut.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Reichel Lake	Reichel Lake	LRE-2-LRE-1	0.46	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, on southern edge of associated wetland. Surface hydrology: Large associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Mukilteo muck, drained (070), Baldhill very stony sandy loam, 0 to 3% slopes (005), McKenna gravelly silt loam, 0 to 5% slopes (065), Baldhill very stony sandy loam, 15 to 30% slopes (007), Pheeney-Rock outcrop complex, 65 to 90% slopes (083). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: searun cutthroat, winter steelhead, wood duck	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, wood duck breeding and waterfowl overwintering habitats. Reach is an emergent wetland. Southern portion of reach is within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake developing into shrub and forest upslope of wetland.	Undeveloped, timber/forest land	LTF	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (1 unpaved logging road), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Surrounding parcels are zoned for forestry use. As a result, shorelines may be heavily forested or clear cut.
Henderson	Shincke Lake	LSH-1-LSH-2	0.22	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Skipopa silt loam, 3 to 15% slopes (108), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Mukilteo muck (069). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: wetlands (along the entire reach), wood duck breeding habitat. Vegetation is submersed and emergent within the wetland and herbaceous and shrub upslope of the wetland.	Railroad, residential, and undeveloped	RRR 1/5	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	TCGDRS, 2007, ranked Henderson Wetland 191 as moderate restoration benefit.	None
Woodard	Shincke Lake	LSH-2-LSH-3	0.16	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Alderwood gravelly sandy loam, 3 to 15% slopes (002), Mukilteo muck (069). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: wetlands (along the entire reach), wood duck breeding habitat. Vegetation is submersed and emergent within the wetland and herbaceous and shrub upslope of the wetland.	transportation, residential	RRR 1/5	Not designated	Public access within the reach: trails (Chehalis Western DNR)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: yes (converted to trail), marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	TCGDRS, 2007, ranked Henderson Wetland 191 as moderate restoration benefit.	Impervious surface - railroad grade converted to impervious trail and building, road found near south end of reach.

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Woodard	Shincke Lake	LSH-3-LSH-1	0.46	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: Associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Alderwood gravelly sandy loam, 3 to 15% slopes (002), Mukilteo muck (069), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age, Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats and site specifics: wetlands (along the entire reach), wood duck breeding habitat. Vegetation is submersed and emergent within the wetland and herbaceous and shrub upslope of the wetland.	Residential, transportation, undeveloped	RRR 1/5, Rural Commercial, LAMIRD 1/2	Not designated	Public access within the reach: roads (36th Ave NE), trails (Chehalis Western DNR)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (1 under 36th Ave NE) , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: yes (converted to trail), marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity.	TCGDRS, 2007, ranked Henderson Wetland 191 and 94 as moderate restoration benefit.	Impervious surface - railroad grade converted to county trail , road found near south end of reach. Buildings along west portion of reach
Woodland	Southwick Lake	LSO-1-LSO-2	0.04	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Surface hydrology: 100-year floodplain and associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 0 to 3% slopes (032), Indianola loamy sand, 3 to 15% slopes (047), Mukilteo muck (069), Nisqually loamy fine sand, 0 to 3% slopes (073). Geologically sensitive area: Yes, entire reach. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: wood duck, western gray squirrel	Reach may contain the following habitats and site specifics: Wetlands (along entire reach), wood duck breeding habitat. Entire reach within 100-year floodplain. Vegetation is submersed and emergent within the wetland and herbaceous to shrub upslope of the wetland.	Undeveloped	LDR 0-4	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Spurgeon Creek	Sunwood Lake	LSUN-1-LSUN-2	0.14	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Alderwood gravelly sandy loam, 15 to 30% slopes (003). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (entire reach). Vegetation is submersed and emergent within the lake to natural shrub and forest area upslope of wetland.	other-cultural	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Spurgeon Creek	Sunwood Lake	LSUN-2-LSUN-3	0.14	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetland in southern portion of reach. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Alderwood gravelly sandy loam, 15 to 30% slopes (003), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (entire reach). Vegetation is submersed and emergent within the lake to fragmented forest for residential use and residential plantings.	Residential, other-cultural	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: yes (1), dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Spurgeon Creek	Sunwood Lake	LSUN-3-LSUN-4	0.04	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Associated wetland. An unnamed stream drains out of Sun Lake into Spurgeon Creek. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (entire reach). Vegetation is submersed and emergent within the lake to natural shrub and forest area upslope of wetland.	Residential, other-cultural	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Spurgeon Creek	Sunwood Lake	LSUN-4-LSUN-5	0.66	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, in areas. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (entire reach). Vegetation is submersed and emergent within the lake to fragmented forest for residential use and residential plantings.	other-cultural	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (1) groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	None noted	

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Spurgeon Creek	Sunwood Lake	LSUN-5-LSUN-6	0.12	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, extremely small area. Surface hydrology: Large associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (entire reach). Vegetation is submersed and emergent within the lake to natural shrub and forest area upslope of wetland.	Residential, other-cultural	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Spurgeon Creek	Sunwood Lake	LSUN-6-LSUN-1	0.78	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, primarily in southern half of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Alderwood gravelly sandy loam, 15 to 30% slopes (003), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands (entire reach). Vegetation is submersed and emergent within the lake to fragmented forest for residential use and residential plantings.	Residential, other-cultural	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (5), groins/jetties: no, culverts: yes (1) , dams: yes (north end of lake), armoring: no, Facilities: roads: yes (Thrulake Circle SE, see Notes column), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Mining related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	A dam functions as a fish passage barrier at north end of lake. Roads cross Thurston County jurisdiction within this reach, but do not provide public access to the lake. A mine is located north of the dam.
Spurgeon Creek	Sunwood Lake	LSUN-7-LSUN-7	0.07	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Unknown. Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: island appears cleared for recreational use, with residential plantings and some trees.	Residential, other-cultural	MGSA	Rural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: yes (foot bridge to island), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	None noted	A foot bridge to the island is located within this reach.

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Tempo Lake	Tempo Lake	LTE-1-LTE-1	0.99	Steep slopes (>= 40% slope): Yes, on eastern side. Potential landslide area (>= 15% slope): Yes, around lake. Surface hydrology: An unnamed stream drains Tempo Lake to the Deschutes River. Control structure at outlet of lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Mukilteo muck, drained (070), Tenino gravelly loam, 15 to 30% slopes (118), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial outwash, gravel, Fraser-age, Alpine glacial outwash, pre-Fraser.	None noted	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach. Entire reach within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake to residential plantings and natural shrub and forest area upslope of wetland.	Residential, undeveloped, other	RL 2/1	Rural	None noted	Modifications: piers/docks/boat ramps: yes (17), groins/jetties: no, culverts: yes (but not associated with Tempo Lake proper), dams: yes, armoring: no, Facilities: roads: yes (three), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Water quality within this reach is impacted (Ecology 303d list).	None noted	A dam functions as a fish passage barrier at SW end of lake.
Percival Creek	Trosper Lake	LTR-1-LTR-2	0.23	Steep slopes (>= 40% slope): No Potential landslide area (>= 15% slope): No Surface hydrology: Percival Creek flows north out of Trosper Lake, 100-year floodplain, associated wetlands, High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Indianola loamy sand, 0 to 3% slopes; Mukileo muck, drained Geologically sensitive area: No Bedrock age: Pleistocene Lithology: Continental glacial outwash, sand, Fraser-age	Reach may contain the following species: Wood duck, Harlequin Duck; Western Pocket Gopher; Rocky Mountain and Roosevelt Elk; summer and fall chinook; coho	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, 100-year floodplain; Wood Duck breeding habitat; Harlequin Duck breeding habitat; waterfowl concentrations; Western Pocket Gopher habitat; Rocky Mountain and Roosevelt Elk wintering range. Vegetation is submersed and emergent within the lake and associated wetland developing into shrub and forest upslope of wetland. Forest is fragmented outside of the wetland but intact within the associated wetland.	Residential; undeveloped	OS, SFL	Conservancy	Reach is adjacent to Trosper Lake Park that lies in the City of Tumwater's jurisdiction	Modifications: piers/docks/boat ramps: yes (6), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (electical transmission via BPA main grid); Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures, driveways); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Native forest cover loss may alter hydrology and sediment processes due to loss of vegetative cover.	Opportunity to replant native vegetation in the shoreline in areas where vegetation has been fragmented.	None
Percival Creek	Trosper Lake	LTR-3-LTR-4	0.14	Steep slopes (>= 40% slope): No Potential landslide area (>= 15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands, High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Indianola loamy sand, 0 to 3% slopes; Mukileo muck, drained Geologically sensitive area: No Bedrock age: Pleistocene Lithology: Continental glacial outwash, sand, Fraser-age	Reach may contain the following species: Wood duck, Harlequin Duck; Western Pocket Gopher; Rocky Mountain and Roosevelt Elk; summer and fall chinook; coho	Reach may contain the following habitats and site specifics: Wetlands (lake) along entire reach, 100-year floodplain; Wood Duck breeding habitat; Harlequin Duck breeding habitat; waterfowl concentrations; Western Pocket Gopher habitat; Rocky Mountain and Roosevelt Elk wintering range. Vegetation is submersed and emergent within the lake developing into fragemented shrub and forest upslope of wetland. Forest has been fragmented for lawns and residential plantings.	Residential; recreation	OS, SFL	Conservancy	Reach is adjacent to Trosper Lake Park that lies in the City of Tumwater's jurisdiction	Modifications: piers/docks/boat ramps: yes (5), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Native forest cover loss may alter hydrology and sediment processes due to loss of vegetative cover.	Opportunity to replant native vegetation in the shoreline in areas where vegetation has been fragmented.	None

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Chambers	Unknown 1	LUNK1-1-LUNK1-2	0.79	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Large associated wetlands. Chambers Creek flows out of the lake to the north. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, majority of reach. Soil names: Yelm fine sandy loam, 0 to 3% slopes (126), Norma silt loam (076), Nisqually loamy fine sand, 0 to 3% slopes (073), Indianola loamy sand, 3 to 15% slopes (047), Giles silt loam, 3 to 15% slopes (039). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Continental glacial outwash, sand, Fraser-age, Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands along entire reach. Vegetation is submersed and emergent within the lake with limited residential plantings upslope of wetland to include shrub and forest.	Residential, undeveloped, agricultural	RRR 1/5	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Chambers	Unknown 1	LUNK1-2-LUNK1-1	0.36	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Large associated wetlands. Chambers Creek flows into the lake. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, majority of reach. Soil names: Yelm fine sandy loam, 0 to 3% slopes (126), Norma silt loam (076), Giles silt loam, 3 to 15% slopes (039). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Continental glacial outwash, sand, Fraser-age, Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands along entire reach. Entire reach not within a designated floodplain. Vegetation is submersed and emergent within the lake with limited residential plantings upslope of wetland to include shrub and forest and clearing for agriculture.	Residential and undeveloped	RRR 1/5, MGSA	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Loss of forest cover due to agriculture and residential use.	None noted	None
Chambers	Ward Lake	LWA-1-LWA-2	0.31	Steep slopes (>= 40% slope): Yes, throughout reach. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Yelm fine sandy loam, 15 to 30% slopes (128), Yelm fine sandy loam, 0 to 3% slopes (126). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	None noted	Reach may contain the following habitats and site specifics: Wetlands along entire reach (and extending SE from east reach break). Entire reach is within a designated 100-year floodplain. Vegetation is submersed and emergent within the lake developing into shrub and forest upslope of wetland including residential plantings.	Residential, undeveloped, other-cultural	R 4/8, R 6/12	Rural	None noted	Modifications: piers/docks/boat ramps: yes (11), groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes (structures, pavement); Water quality: 303(d) list: yes (PCB), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Schneider Creek	Pond 1, unnamed	LPO1-1-LPO1-1	0.74	Steep slopes (>= 40% slope): Yes, in areas. Potential landslide area (>= 15% slope): Yes, in large areas. Surface hydrology: An unnamed stream drains the pond at the south end to Scheider Creek. Associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in the open water. Soil names: Mukilteo muck (069), Grove very gravelly sandy loam, 3 to 15% slopes (042), Delphi very gravelly loam, 15 to 30% slopes (028), Schneider very gravelly loam, 40 to 65% slopes (103). Geologically sensitive area: No. Bedrock age: Eocene, lower to middle, and Holocene. Lithology: Basalt flows and flow breccias, Crescent Formation, and Alluvium.	Reach may include the following species: wood duck.	Reach may contain the following habitats and site specifics: There are no WDFW PHS habitats in reach. Wetland and associated buffer are limited to the pond itself. Pond is almost entirely infilled with vegetation (all wetland), shoreline vegetation (tree/shrub) intact except for active adjacent mining.	undeveloped, timber/ forestland	RRR 1/5	not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: 1 unpaved logging road, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber, forestry, or mining related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	There is a mine mapped within and adjacent to shoreline jurisdiction.
Kennedy Creek	Pond 2, unnamed	LPO2-1-LPO2-1	1.15	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: A creek drains the pond to the east, and joins Kennedy Creek. Associated wetlands. High groundwater hazard: No. Limited groundwater concern: Yes, entire reach. Hydric soils: No. Soil names: Delphi very gravelly loam, 3 to 15% slopes (027), Schneider very gravelly loam, 20 to 40% slopes (102). Geologically sensitive area: No. Bedrock age: Eocene, lower to middle. Lithology: Basalt flows and flow breccias, Crescent Formation.	There are no species listed in the WDFW PHS database for Pond 2 (unnamed).	Reach may contain the following habitat and site specifics: There are no WDFW PHS habitats in reach. Wetland and associated buffers are limited to the pond itself. Pond is openwater with fringing emergent vegetation and intact shoreline vegetation (trees, narrow in places), surrounded by forestry (active within jurisdiction, logging roads within jurisdiction).	Timber/forestland	LTF	not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (multiple private logging access), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	TCGDRS, 2009, ranked one wetland site (Totten Eld Wetland 55) as low restoration benefit, and one riparian site (Totten Eld Riparian 182) as low restoration benefit.	There is active timberland within and adjacent to jurisdiction. Roads occur within the shoreline zone, but not in wetland or floodplain.
Summit Lake	Summit Lake	LSU-1-LSU-2	0.44	Steep slopes (>= 40% slope): Yes, a very small area. Potential landslide area (>= 15% slope): Yes, a small area. Surface hydrology: An unnamed stream drains southwest from Summit Lake and then flows into Kennedy Creek. Associated wetlands on southwest side of lake. High groundwater hazard: No. Limited groundwater concern: Yes, in areas. Hydric soils: Yes, majority of reach. Soil names: Delphi very gravelly loam, 3 to 15% slopes (027), Godfrey silty clay loam (041), Shalcar variant muck (106). Geologically sensitive area: No. Bedrock age: Eocene, lower to middle, and Holocene. Lithology: Basalt flows and flow breccias, Crescent Formation, and Alluvium.	Reach may include the following species: resident cutthroat (creek only, not lake).	Reach may contain the following habitats and site specifics: Wetland and associated buffers (entire shoreline, includes lake and associated wetland). 100-year flood plain (entire reach, includes creek). Vegetation is emergent/shrub (associated wetland). Reach is primarily recreational land associated with the Boy Scout Camp.	recreation, other, residential, undeveloped, timber/forestland	RRR 1/5	conservancy, rural	None noted	Modifications: piers/docks/boat ramps: yes (7), groins/jetties: no, culverts: no , dams: yes, armoring: yes (per aerial, minimal at either end of reach in residential areas), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: yes (PCB (tissue)), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.		Boy Scouts of America ownership for majority of reach shoreline. WDFW stocks lake with kokanee and rainbow trout. Armoring not included in impacts due possible misidentification (aerial), and scale of impact (small area within reach).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Summit Lake	Summit Lake	LSU-2-LSU-1	5.17	Steep slopes (>= 40% slope): Yes, frequent in reach. Potential landslide area (>= 15% slope): Yes, majority of reach. Surface hydrology: Eight narrow riverine wetlands are mapped as draining into Summit Lake in this reach. High groundwater hazard: No. Limited groundwater concern: Yes, over the entire reach. Hydric soils: Yes, in one very small area. Soil names: Delphi very gravelly loam, 3 to 15% slopes (027), Godfrey silty clay loam (041), Schneider very gravelly loam, 40 to 65% slopes (103), Schneider very gravelly loam, 20 to 40% slopes (102), Delphi very gravelly loam, 15 to 30% slopes (028). Geologically sensitive area: No. Bedrock age: Eocene, lower to middle. Lithology: Basalt flows and flow breccias, Crescent Formation.	There are no species listed in the WDFW PHS database for Summit Lake.	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (primarily the lake and associated drainages), 100-year flood plain (lake only). The reach is almost entirely developed (residential) with a few owned but undeveloped parcels, most parcels include docks and/or floats (including undeveloped uplands). Some areas with trees/shrubs at shoreline, most landscaped and/or buildings in jurisdiction.	residential, undeveloped, other, utilities	RL 2/1	rural	Public access within the reach: launches (Summit Lake Summit Lake Water Access Site), roads (Summit Lake Road).	Modifications: piers/docks/boat ramps: yes (411), groins/jetties: no, culverts: yes (20 culverts, 0 barriers) dams: yes, armoring: yes (per aerial, many residences appear to have linear shorelines indicating bulkheads), Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: yes; Water quality: 303(d) list: yes (PCB (tissue)), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Water quality within this reach is impacted (Ecology 303d list).		Undeveloped forest lands, some with clear cuts, within basin but outside of jurisdiction. Various community association parks may be considered semi-public access. Impervious surface estimation is may be >30%, but is so variable over such a large area the it is difficult to determine.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black Lake	Black Lake	LBL-10-LBL-11	0.37	Steep slopes (>= 40% slope): No. Potential landslide area(>=15% slope): Yes, small area in northern section of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Everett very gravelly sandy loam, 0 to 3% slopes (032), Alderwood gravelly sandy loam, 0 to 3% slopes (001) Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetland and associated buffers (Lake only), 100-year flood plain (lake only). There is minimal shoreline vegetation in this reach (some trees), residential (multifamily/mobile homes) with dense housing and associated roads and landscaping in shoreline jurisdiction.	residential	MFM, SFM	rural	Public access within the reach: roads (Dent Rd SW)	Modifications: piers/docks/boat ramps: yes (15), groins/jetties: no, culverts: no, dams: no, armoring: yes (areas in central and south reach), Facilities: roads: yes (6 - includes private), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (it is estimated that impervious surface exceeds 30% for this reach); Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	Private launch and shoreline access in mobile home park. High impervious surface estimation based on road, buildings, and associated drives. While roads occur within jurisdiction they do not occur in wetland or floodplain area.
Black Lake	Black Lake	LBL-11-LBL-12	1.05	Steep slopes (>= 40% slope): Yes, extremely small area in southern section of reach. Potential landslide area (>= 15% slope): Yes, in southern section of reach. Surface hydrology: Associated wetland in small portion of reach. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, northern section of reach. Soil names: Alderwood gravelly sandy loam, 0 to 3% slopes (001), Everett very gravelly sandy loam, 0 to 3% slopes (032), Norma silt loam (076), McKenna gravelly silt loam, 0 to 5% slopes (065), Cagey loamy sand (020), Indianola loamy sand, 15 to 30% slopes (048), Indianola loamy sand, 0 to 3% slopes (046). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetland and associated buffers (mostly Lake, a number of small fringing areas mapped), 100-year flood plain (mostly lake with some areas landward along entire jurisdiction). In residential areas there is minimal vegetation (mostly landscaped, some buildings), with some trees. Areas zoned OS are mostly private lands with minimal development (some managed vegetation).	residential, undeveloped, recreation, other	SFL, OS	rural, conservancy	Public access within the reach: roads (52nd Ave SW)	Modifications: piers/docks/boat ramps: yes (40), groins/jetties: no, culverts: yes (1 culvert, 0 barriers), dams: no, armoring: yes (per aerial photo, many parcels appear to have bulkhead/armoring based on linear features), Facilities: roads: yes (6 - includes private), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	None noted	Reach includes private camp area with shoreline access. While roads occur within jurisdiction they do not occur in wetland or floodplain area.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black Lake	Black Lake	LBL-12-LBL-13	0.29	Steep slopes (>= 40% slope): Yes. Small amount in north reach. Potential landslide area (>= 15% slope): Yes, in north reach. Surface hydrology: Fish Pond Creek flows into Black Lake in this reach. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Indianola loamy sand, 15 to 30% slopes (048), Cagey loamy sand (020) Geologically sensitive area: No. Bedrock Age: Pleistocene. Lithology:	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (primarily lake includes fringing vegetation), 100-year flood plain (includes lake and areas landward). Almost continuous shoreline vegetation (trees); narrow in residential area and then most of jurisdiction in park (except swimming beach). Tributary stream in this reach is fish-bearing.	recreation, commercial	OS	conservancy	Public access within the reach: Parks/Gov't Land (Kenneydell Park)	Modifications: piers/docks/boat ramps: yes (4), groins/jetties: no, culverts: no, dams: no, armoring: yes (per aerial photo, small area of bulkhead in park based on linear feature), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	None noted	Kenneydell Park is included in this reach, private camp in jurisdiction (uplands only). Reach includes water quality gauge. Armoring not included in impacts due possible misidentification (aerial), and scale of impact (small area within reach, relatively high relative to waterline).
Black Lake	Black Lake	LBL-13-LBL-1	0.57	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes. Very small areas on outer edge of associated wetland. Surface hydrology: An unnamed stream flows through associated wetland and into Black Lake in this reach. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, portion of reach in associated wetland. Soil names: Cagey loamy sand (020), Semiahmoo muck (104), Kapowsin silt loam, 3 to 15% slopes (051), McKenna gravelly silt loam, 0 to 5% slopes (065) Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat, wood duck.	Reach may include the following habitats and site specifics: Wetland and associated buffers (Lake except for extensive area to south), Habitats (waterfowl concentration), 100-year flood plain (Lake with some landward areas). Shoreline vegetation includes trees (not continuous, includes residential, open space, and undeveloped land) and landscaped/modified vegetation (residential). Most continuous shoreline vegetation is part of an associated wetland with a fish-bearing tributary stream.	residential, undeveloped, other, parks	SFL, OS, MFM	conservancy	Public access within the reach: launches (Black Lake WDFW Water Access Site)	Modifications: piers/docks/boat ramps: yes (17), groins/jetties: no, culverts: no, dams: no, armoring: yes (per aerial photo, occasional residential bulkheads based on linear feature), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	None noted	Reach includes water quality gauge.
Black Lake	Black Lake	LBL-1-LBL-2	0.28	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, entire reach. Soil names: Kapowsin silt loam, 3 to 15% slopes (051), McKenna gravelly silt loam, 0 to 5% slopes (065), Semiahmoo muck (104). Geologically sensitive area: No. Bedrock age: Majority of reach is Holocene. Pleistocene only in small northern section. Lithology: Primarily alluvium, with a small portion of continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat, green heron, wood duck, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffers (entire reach, in-water and along banks, extensive to south). Habitats: waterfowl concentration. 100-year flood plain (entire reach, extensive to south). Minimal development, includes large wetland drainage to south, emergent/shrub vegetation continuous along shoreline and in most of jurisdiction.	undeveloped, residential	SFL	natural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black Lake	Black Lake	LBL-2-LBL-3	0.34	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: The Black River flows into Black Lake. Associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, entire reach. Soil names: Semiahmoo muck (104). Geologically sensitive area: No. Bedrock age: Majority of reach is Holocene. Small northern section is Pleistocene. Lithology: Primarily alluvium, with a small portion of continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat, green heron, wood duck, mink.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (entire reach, in-water and banks, extensive to south). Habitats: waterfowl concentration. 100-year floodplain (entire reach, extensive to south). Shoreline largely undeveloped (single parcel with development in jurisdiction), continuous shoreline vegetation (emergent/shrub) with remainder of jurisdiction shrub or forest.	residential, undeveloped, recreation	RRR 1/5, R 1/20	natural	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Includes private beach club with water access.
Black Lake	Black Lake	LBL-3-LBL-4	0.63	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, southern half of reach. Soil names: Semiahmoo muck (104), Cagey loamy sand (020), Indianola loamy sand, 0 to 3% slopes (046), Norma silt loam (76). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat, wood duck.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (lake only, except at south end of reach), Habitat: waterfowl concentration, 100-year flood plain (lake only). Entire reach is single family residences, most with docks, and minimal or no shoreline vegetation (landscaped/buildings within jurisdiction).	residential, undeveloped, other	RL 2/1	conservancy, rural	None noted	Modifications: piers/docks/boat ramps: yes (43), groins/jetties: no, culverts: no, dams: no, armoring: yes (based on aerial photos, most residences have some kind of armoring), Facilities: roads: no, bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Black Lake	Black Lake	LBL-4-LBL-5	0.22	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, very small area. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, entire reach. Soil names: Norma silt loam (076), Everett very gravelly sandy loam, 15 to 30% slopes (34), Spanaway gravelly sandy loam, 0 to 3% slopes (110) Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetlands and associated buffer (entire reach, includes in-water and banks), 100-year floodplain (landward from banks). The entire reach is located within Guerin Park (no shoreline public access); the entire shoreline is vegetated (emergent/shrub) with forest landward.	industrial	PP	rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	Guerin Park does not include shoreline public access. Use is coded commercial/industrial land.

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Black Lake	Black Lake	LBL-5-LBL-6	0.70	Steep slopes (>= 40% slope): Yes, very small area. Potential landslide area (>= 15% slope): Yes, for most of reach. Surface hydrology: Associated wetland in southern section. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Spanaway gravelly sandy loam, 0 to 3% slopes (110), Everett very gravelly sandy loam, 15 to 30% slopes (034). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetland and associated buffer (primarily lake with small areas landward in south and central reach), 100-year flood plain (mostly lake with few areas landward). Minimal shoreline vegetation (some trees), otherwise developed residential (yards and buildings in jurisdiction) and other private ownership with docks (most parcels).	residential, undeveloped, open space	RRR 1/5	rural	None noted	Modifications: piers/docks/boat ramps: yes (19), groins/jetties: no, culverts: no, dams: no, armoring: yes (per aerial photos, some parcels appear to have bulkheads [linear shorelines]), Facilities: roads: no, bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	Private launch and shoreline access at Knights of Columbus Club.
Black Lake	Black Lake	LBL-6-LBL-7	1.07	Steep slopes (>= 40% slope): Yes, scattered throughout the reach. Potential landslide area (>= 15% slope): Yes, for majority of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, very small area. Soil names: Everett very gravelly sandy loam, 15 to 30% slopes (034), Hoogdal silt loam, 15 to 30% slopes (043), Skipopa silt loam, 3 to 15% slopes (108), Giles silt loam, 15 to 30% slopes (040), Bellingham silty clay loam (14). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetland and associated buffers (lake with few landward areas), 100-year flood plain (mostly lake, extends inland along central reach). Minimal shoreline vegetation (some trees), otherwise developed residential (yards and buildings in jurisdiction) and other private ownership with docks (most parcels). Reach entirely residential (few undeveloped) or other private ownership (including mobile home park) with minimal (narrow bank between road and lake) or no shoreline vegetation (landscaping/buildings in jurisdiction).	residential, undeveloped, agriculture, commercial	RL 1/2	rural	Public access within the reach: trails (1 - bikeway), roads (Black Lake Blvd SW, Goldsby St SW)	Modifications: piers/docks/boat ramps: yes (28), groins/jetties: no, culverts: yes (3 culverts, 0 barriers), dams: no, armoring: yes (per aerial photos, some parcels appear to have bulkheads [linear shorelines] , armoring may exist at north end of reach between road and lake), Facilities: roads: yes (2), bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: yes (It is estimated that impervious surface exceeds 30% for this reach); Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: yes, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	A number of the properties at the north half of the reach are split by Black Lake Road with private ownership on the lake side, houses on the land side. Contaminated site hit is for Black Lake Grocery, but no additional data detail are available. High impervious surface estimation based on road, buildings, and associated drives. Agriculture occurs within jurisdiction but is well landward of the banks and does not affect shoreline

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												Contaminated sediment may impact water quality and habitat.		vegetation.
Black Lake	Black Lake	LBL-7-LBL-8	0.32	Steep slopes (>= 40% slope): Yes, in portions of reach. Potential landslide area (>= 15% slope): Yes, for entirety of reach. Surface hydrology: Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, portion of reach. Soil names: Giles silt loam, 15 to 30% slopes (040), Giles silt loam, 3 to 15% slopes (039), Semiahmoo muck (104). Geologically sensitive area: No. Bedrock Age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetland and associated buffers (mostly lake, includes fringing forest/shrub/emergent areas landward and areas adjacent to Black Lake Ditch) 100-year flood plain (includes areas landward of Lake and entire area adjacent to Black Lake ditch). The shoreline is largely vegetated (trees/shrubs), but primarily consists of narrow band between the lake and road. Use is residential or agriculture (landward of road).	residential, agriculture	RRR 1/5	rural, Percival SMA	Public access within the reach: trails (2 - bikeways), roads (Black Lake Blvd SW, 40th Ln SW, Black Lake-Belmore Rd SW)	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (per aerial photos, armoring may exist between road and lake), Facilities: roads: yes (3), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	The reach includes two split parcels with landward buildings and waterward private shoreline), and one parcel that is entirely waterward of the road. Agriculture occurs within jurisdiction but is well landward of the banks and does not affect shoreline vegetation.
Black Lake	Black Lake	LBL-8-LBL-9	0.10	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Black Lake Ditch/Percival Creek drains Black Lake. Associated wetland. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, entire reach. Soil names: Semiahmoo Muck (104) Geologically sensitive area: No. Bedrock Age: Pleistocene and Holocene. Lithology: Alluvium, and continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (includes fringing vegetation between Lake and road and entire area landward of road adjacent to Black Lake Ditch), 100-year flood plain (Lake and entire area landward of road adjacent to Black Lake Ditch). Lake vegetation is limited to narrow band of tree/shrub/emergent vegetation between the lake and road. Landward of the road is undeveloped greenbelt adjacent to Black Lake Ditch (shrub wetland).	open space	GB	Percival SMA	Public access within the reach: trails (1 - bikeways), roads (Black Lake-Belmore Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (per aerial photos, armoring may exist between road and lake), Facilities: roads: yes (1), bridges: yes (1 - Black Lake bridge), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: yes (PCBs (tissue), phosphorus, temperature, dissolved oxygen, pH), contaminated sediments: no, shellfish harvest ratings: n/a	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer	None noted	Aerial photos indicate that there are two pieces of large woody debris located at the confluence of Black lake and Black Lake Ditch. 303(d) parameters include those for Black Lake Ditch in reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
												recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).		
Black Lake	Black Lake	LBL-9-LBL-10	0.24	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, small area in southern section of reach. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, portion of reach. Soil names: Everett very gravelly sandy loam, 0 to 3% slopes (032), Semiahmoo Muck (104) Geologically sensitive area: No. Bedrock Age: Pleistocene and Holocene. Lithology: Alluvium, and continental glacial outwash, sand, Fraser-age.	Reach may include the following species: fall chinook, coho, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetland and associated buffers (primarily lake and landward of road adjacent to Black Lake Ditch, small mapped emergent area central reach), 100-year floodplain (primarily lake and landward of road adjacent to Black Lake Ditch). Shoreline vegetation is minimal, primarily emergent/shrub at bank, with residential landscaping and buildings in jurisdiction.	residential	SFL	rural	Public access within the reach: trails (1 - bikeways), roads (Black Lake-Belmore Rd SW)	Modifications: piers/docks/boat ramps: yes (10), groins/jetties: no, culverts: no, dams: no, armoring: no (per aerial photos), Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (it is estimated that impervious surface exceeds 30% for this reach); Water quality: 303(d) list: yes (PCBs (tissue), phosphorus), contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	None noted	No clear armoring mapped or per aerial photos, may exist. High impervious surface estimation based on road, buildings, and associated drives.
Allen Creek	Deep Lake	LDE-1-LDE-2	0.17	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, small areas. Surface hydrology: None. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Everett very gravelly sandy loam, 0 to 3% slopes (032), Geologically sensitive area: No. Bedrock Age: Pleistocene Lithology: Continental glacial outwash, gravel, Fraser-age	Reach may include the following species: resident cutthroat, Olympic mud minnow, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffers (lake only), 100-year flood plain (landward from lake to south). There is a mobile home park adjacent to lake (private roads, homes, yards in jurisdiction, swimming beach), shoreline vegetation is limited to a few trees.	residential, open space, other	RRR 1/5, NC	conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1 plus private drives for mobile home park), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (may exceed 30% in this reach); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	None noted	High impervious surface based on drives (private and in mobile home park) and buildings.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Allen Creek	Deep Lake	LDE-2-LDE-3	0.34	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, small areas. Surface hydrology: An unnamed stream flows into Deep Lake through an associated wetland in this reach. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, around the stream. Soil names: Everett very gravelly sandy loam, 0 to 3% slopes (032), Tisch silt loam (120). Geologically sensitive area: No. Bedrock Age: Pleistocene Lithology: Continental glacial outwash, gravel, Fraser-age	Reach may include the following species: resident cutthroat, Olympic mud minnow, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffers (primarily Lake but extends adjacent to creek mid-reach), 100-year flood plain (primarily Lake but extends adjacent to creek). Shoreline vegetation is mostly intact (except for around houses) in a narrow band with agricultural/mowed areas associated landward; reach includes associated wetland and fish-bearing stream (non SMP).	open space, residential, other	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity.	None noted	Jurisdiction does not extend south along creek, despite associated wetlands and flood zone A.
Allen Creek	Deep Lake	LDE-3-LDE-1	0.93	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, small areas. Surface hydrology: An unnamed stream flows between Deep Lake and Scott Lake through a large associated wetland. Three associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 0 to 3% slopes (032), Everett very gravelly sandy loam, 3 to 15% slopes (033), Semiahmoo muck (104), Mukilteo muck, drained (070), Norma silt loam (076). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene Lithology: Continental glacial outwash, gravel, Fraser-age; Alluvium	Reach may include the following species: coho salmon, searun cutthroat, resident cutthroat, Olympic mud minnow, green heron, wood duck, osprey, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffer (includes Lake, complex to SW (extends outside of Park), large complex to Deep Lake (artificial break defined at State Park line), and from NE corner of Lake), Anadromous fish spawning and/or rearing (coho), 100-year flood plain (includes area to SW and associated with large complex to Deep Lake). Entire reach is Millersylvania State Park. Shoreline vegetation largely intact including emergent, shrub, and forested areas, some with large associated wetlands and streams. Modified/cleared vegetation exists at shoreline recreational facilities (lawns, swimming beaches, hand launch, trails)	parks, commercial, open space, timber/forestlands	PP	conservancy	Public access within the reach: launches (hand launch in Park), trails (in Park), roads (in Park), Parks/Gov't Land (Millersylvania State Park)	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (2), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover. Mining related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Although unmapped, crossing at unnamed private drive in Park is upstream extent of coho distribution, assume barrier of some sort.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Lake 2, unknown	LUNK2-1-LUNK2-2	0.90	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Yes, small areas. Surface hydrology: Scatter Creek drains the lake to the south through extensive associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, almost entire reach. Soil names: Mukilteo muck (069), Norma silt loam (076), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Everson clay loam (036), Alderwood gravelly sandy loam, 0 to 3% slopes (001), Norma fine sandy loam (075), Mukilteo muck, drained (070). Geologically sensitive area: No. Bedrock age: Pleistocene Lithology: Continental glacial till, Fraser-age	Reach may include the following species: resident cutthroat, wood duck, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffers (extensive surrounding Lake and to south as drainage develops to Scatter Creek), Habitats (wood duck breeding area). Reach comprises the headwaters of north fork of Scatter Creek. Pond is primarily undeveloped and owned by Botanical Trust, it is entirely vegetated (including almost solid shrub/emergent in-water). There is some clearing in associated shoreline zone as well as an access drive.	residential, timber/forestland	RRR 1/5	not designated	Public access within the reach: roads (Marshall Rd SE, Vantine Rd SE)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (2), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Scatter Creek	Lake 2, unknown	LUNK2-2-LUNK2-1	n/a	Steep slopes (>= 40% slope): Yes, small areas. Potential landslide area (>= 15% slope): Yes, small areas. Surface hydrology: Scatter Creek drains the lake to the south through extensive associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, almost entire reach. Soil names: Mukilteo muck, drained (070), Norma silt loam (076), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Everson clay loam (036), Norma fine sandy loam (075), McKenna gravelly silt loam, 0 to 5% slopes (065), Everett very gravelly sandy loam, 3 to 15% slopes (033), Tenino gravelly loam, 3 to 15% slopes (117). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene Lithology: Alluvium, Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age	Reach may include the following species: resident cutthroat, wood duck, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach), Habitat (wood duck breeding area - entire reach). Reach comprises upstream extent of the north fork of Scatter Creek (which appears to be ditched), associated jurisdiction continues off Botanical Trust property and extends along Scatter Creek to south < 1 mile through a residential area, vegetation is mostly emergent (cleared/agriculture) with some forested/shrub areas. Jurisdiction also extends into forested area to east.	residential, timber/forestland, agriculture, undeveloped	RRR 1/5	not designated	Public access within the reach: roads (Vantine Rd SE)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (3 culverts, 0 barriers), dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Vantine Road goes in and out of jurisdiction, culverts only counted if in jurisdiction, but no barriers for any on this road.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Mine 1, unnamed	LUNM-1-LUNM-1	3.45	Steep slopes (>= 40% slope): Yes, created through mining operation Potential landslide area (>= 15% slope): Yes, created through mining operation Surface hydrology: Drains into the Thompson Creek Skook Basin through an unnamed stream. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, very small section. Soil names: Pits, gravel; Spanaway gravelly sandy loam, 0 to 3% slopes (110); Nisqually loamy fine sand, 3 to 15% slopes (74); Spanaway stony sandy loam, 3 to 15% slopes (113); Everett very gravelly sandy loam, 0 to 3% slopes (32); Godfrey silty clay loam Geologically sensitive area: No. Bedrock age: Pleistocene, Holocene Lithology: Continental glacial outwash, gravel, Fraser-age; Alluvium	Reach may contain the following species: Harlequin duck; Rocky Mountain and Roosevelt Elk;	Reach may contain the following habitats and site specifics: Harlequin duck breeding habitat; Rocky Mountain and Roosevelt Elk wintering range. Waterbody has been created from mining activities. Forest cover is present on southeast side of shoreline, and remainder of shoreline has grassy/ shrubby vegetation.	Utilities	RRR1/5	not designated	Roads: Skookumchuck Rd. SE; Tyrel Rd. SE	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (2), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads may result in habitat fragmentation and altered hydrologic transport.	When mining activity has stopped, there is the opportunity to restore the area into a functioning wetland, particularly through revegetation of currently non-vegetated shorelines.	
Hanaford Creek	Lake 4, unnamed	LUNK-4-LUNK-4	1.21	Steep slopes (>= 40% slope): Yes, small area. Potential landslide area (>= 15% slope): Yes. Surface hydrology: North Hanaford Creek feeds the waterbody from the east and flows out to the west. Five other unnamed creeks flow into the waterbody. Associated wetlands and 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Centralia silt loam, 15 to 30% slopes (24); Godfrey silty clay loam (41); Galvin silt loam, 0 to 5 % slopes (37); Centralia silt loam, 30 to 60% slopes (25) Geologically sensitive area: No. Bedrock age: Eocene, middle to upper; Holocene Lithology: Nearshore sedimentary rocks; alluvium	Reach may contain the following species: Harlequin duck; Wood duck; Eastern wild turkey; Rocky Mountain and Roosevelt Elk	Reach may contain the following habitats and site specifics: Associated wetlands and 100-year floodplain; Harlequin duck breeding areas; Wood duck breeding areas; Waterfowl concentrations; Rocky Mountain and Roosevelt Elk wintering range; Shoreline is almost entirely forested except for western edge where it meets Tono Rd SE and is entirely deforested.	Timber/forestland	LTF	Not designated	Roads: Tono Rd SE	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (2) Tono Rd SE , dams: yes (Centralia Coal Mine Dam No 32B), armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Culverts may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	Opportunity to revegetate deforested area on west shoreline	

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Hanaford Creek	Mine 2, unnamed	LUNM-2-LUNM-2	4.70	Steep slopes (>= 40% slope): Yes Potential landslide area (>= 15% slope): Yes Surface hydrology: Associated wetlands, 100-year floodplain, North Hanaford Creek runs through the waterbody High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Centralia silt loam, 15 to 30% slopes (24); Galvin silt loam, 0 to 5 % slopes (37); Godfrey silty clay loam (41); Centralia silt loam, 8 to 15% slopes (23); Centralia silt loam, 30 to 60% slopes (25) Geologically sensitive area: No Bedrock age: Eocene, middle to upper; Holocene; Pleistocene Lithology: Nearshore sedimentary rocks; Alluvium; Alpine glacial outwash, pre-Fraser	Reach may contain the following species: Rocky Mountain and Roosevelt Elk	Reach may contain the following habitats and site specifics: Associated wetlands and 100-year floodplain; Rocky Mountain and Roosevelt Elk wintering range; Shoreline has no significant vegetation. It is in the middle of an active mine.	Mining; timber/forestland;	LTF	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity.	Opportunity to restore an active mine to a functioning wetland particularly through revegetation of the currently unvegetated shorelines and surrounding area.	Should meet with mine owners to discuss restoration plan
Hanaford Creek	Mine 3, unnamed	LUNM-3-LUNM-3	0.92	Steep slopes (>= 40% slope): Yes Potential landslide area (>= 15% slope): Yes Surface hydrology: Possible inflow from Lake Unknown Mine 3 High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: No Soil names: Centralia silt loam, 15 to 30% slopes (24); Galvin silt loam, 0 to 5 % slopes (37); Godfrey silty clay loam (41); Centralia silt loam, 8 to 15% slopes (23); Centralia silt loam, 30 to 60% slopes (25) Geologically sensitive area: No Bedrock age: Eocene, middle to upper; Pleistocene Lithology: Nearshore sedimentary rocks; Alpine glacial outwash, pre-Fraser	Reach may contain the following species:Rocky Mountain and Roosevelt Elk	Reach may contain the following habitats and site specifics: Rocky Mountain and Roosevelt Elk wintering range. Shoreline is denuded of vegetation except for a small area on the northern shore covered in shrubs. The shoreline is in the middle of an actiave mine and active forestry area.	Mining; timber/forestland;	LTF	Not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: n/a, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads may result in habitat fragmentation and altered hydrologic transport.	Opportunity to restore an active mine to a functioning wetland particularly through revegetation of the currently unvegetated shorelines	Should meet with mine owners to discuss restoration plan

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Bloom Ditch	Pitman Lake	LPI-1-LPI-1	0.84	Steep slopes (>= 40% slope): Yes, very small area. Potential landslide area (>= 15% slope): Yes, small areas. Surface hydrology: Bloom's Ditch flows west out of Pitman Lake. An unnamed stream flows into Pitman Lake. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes, entire reach area. Soil names: Mukilteo muck (069), Everett very gravelly sandy loam, 0 to 3% slopes (032), Tenino gravelly loam, 3 to 15% slopes (117), Indianola loamy sand, 0 to 3% slopes (046), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Shalcar Variant muck (106), Norma fine sandy loam (075). Geologically sensitive area: No. Bedrock Age: Primarily Holocene, but some Pleistocene in associated wetlands. Lithology: Primarily Alluvium, with some Continental glacial till, Fraser-age, Continental glacial outwash, gravel, Fraser-age. Very minute amount of Continental glacial outwash, sand, Fraser-age.	Reach may include the following species: resident cutthroat, Olympic mudminnow, wood duck, mink.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (extensive beyond pond, particularly to SW), habitat (waterfowl concentrations), 100-year flood plain (extensive beyond pond, particularly to SW). The lake is entirely undeveloped with shrub vegetation surrounding and extensive undeveloped wetland extending south to Maytown Road; this wetland includes emergent/shrub/and forest components and a pond complex.	residential, undeveloped, agriculture, timber/forestlands	RRR 1/5, PP	conservancy	Public access within the reach: Parks/Gov't Land (associated jurisdiction extends into Millersylvania State Park), but not accessible	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Agriculture occurs far landward of the lake banks, but within jurisdiction.
Scatter Creek	Pond 3, unnamed	LPO3-1-LPO3-1	1.23	Steep slopes (>= 40% slope): Yes, on the north side of lake. Potential landslide area (>= 15% slope): Yes, around most of lthe lake. Surface hydrology: An unnamed stream feeds the pond on east side. An unnamed stream drains the pond on the west side. Several associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, within the stream bed and open water area. Soil names: Tenino gravelly loam, 3 to 15% slopes (117), Everson clay loam (036), Mukilteo muck (069). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Primarily Continental glacial outwash, gravel, Fraser-age, with a very small area of continental glacial drift, pre-Fraser.	Reach may include the following species: coast resident cutthroat, wood duck, mink.	Reach may include the following habitats and site specifics: wetland and associated buffer (mostly pond, small areas of adjacent wetland), Habitat (wood duck breeding area). This reach is another headwater area for the north fork of Scatter Creek. Shoreline almost entirely vegetated (forested/shrub), emergent/shrub present in-water. There is minor clearing (including drives) on some residential lots in jurisdiction and active forestry in jurisdiction in designated forest area.	residential, undeveloped, timber/forestlands	RRR 1/5.	not designated	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: yes , armoring: no, Facilities: roads: yes (unmapped private drives), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	PHS fish may be in unnamed stream only , not lake - lake appears to be created by a dam with a private road/drive on top. While roads are present in shoreline jurisdiction, they do not occur in wetland or floodplain areas.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Frost Prairie	Pond 4, unnamed	LPO4-1-LPO4-1	1.46	Steep slopes (>= 40% slope): Yes. Potential landslide area (>= 15% slope): Yes. Surface hydrology: An unnamed creek drains the pond north to Scatter Creek. Associated wetland on north side of pond. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Grove very gravelly sandy loam, 3 to 15% slopes (042), Delphi very gravelly loam, 15 to 30% slopes (028), Schneider very gravelly loam, 40 to 65% slopes (103), Mukilteo muck (069). Geologically sensitive area: No. Bedrock age: Holocene and Eocene, lower to middle. Lithology: Alluvium, Basalt flows and flow breccias, Crescent Formation.	Reach may include the following species: coho, winter steelhead, searun cutthroat, resident cutthroat, harlequin duck.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (), Habitat (harlequin duck breeding area entire reach), Oak (oak forest or woodland canopy (oak-conifer), oak habitat (conifer deciduous), in drainage downstream of Pond). Pond and associated wetlands (downstream to Bucoda Highway) draining to Skookumchuck River just upstream of Bucoda. Pond is entirely forest/shrub including in-water emergent/shrub vegetation. There does not appear to be active forestry or other development in jurisdiction, although there are access roads.	timber/forestland, agriculture, undeveloped	RRR 1/5	not designated	Public access within the reach: roads (Yates Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Allen Creek	Scott Lake	LSL-1-LSL-2	0.61	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No Surface hydrology: Allen Creek flows west out of Scott Lake. Associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, majority of reach. Soil names: Tisch silt loam (120), Norma fine sandy loam (75), Norma silt loam (76), Yelm fine sandy loam, 0 to 3% slopes (126), Semiahmoo muck (104). Geologically sensitive area: No. Bedrock age: Pleistocene Lithology: Continental glacial outwash, sand, Fraser-age	Reach may include the following species: coho salmon, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (Lake only except for associated wetlands at creek outlet and Blooms Ditch drainage), Anadromous fish spawning and/or rearing (coho) 100-year flood plain (entire reach, landward area at creek outlet). Reach is entirely developed (residential, buildings in jurisdiction), vegetation almost entirely modified (lawns to bank, few trees), except at mouth of lake and wetland to Blooms Ditch.	residential, undeveloped, other	RL 2/1	rural	Public access within the reach: roads (Par Ct SW)	Modifications: piers/docks/boat ramps: yes (11), groins/jetties: no, culverts: yes (1 culvert, no barrier), dams: no, armoring: yes (per aerial photo, occasional residential bulkheads based on linear feature), Facilities: roads: yes (2), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	None noted	Reach includes water quality gauge.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Allen Creek	Scott Lake	LSL-2-LSL-3	0.28	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): No. Surface hydrology: Associated wetlands in small portions of reach. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Norma fine sandy loam (75), Yelm fine sandy loam, 0 to 3% slopes (126), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: No. Bedrock age: Pleistocene Lithology: Continental glacial outwash, sand, Fraser-age	Reach may include the following species: coho salmon, searun cutthroat, resident cutthroat.	Reach may include the following habitats and site specifics: Wetland and associated buffers (Lake only except at Bloom Ditch drainage), Anadromous fish spawning and/or rearing (coho), 100-year flood plain (landward of lake for most of reach). Almost entirely residential (buildings in jurisdiction) with modified vegetation (lawns) to banks, small areas of intact shoreline vegetation (shrub).	residential, other	RRR 1/5	rural	None noted	Modifications: piers/docks/boat ramps: yes (5), grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	None noted	Armoring may exist, no mapped and unclear based on aerial photos.
Allen Creek	Scott Lake	LSL-3-LSL-4	0.34	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Very small area. Surface hydrology: An unnamed stream flows between Scott Lake and Deep Lake in this reach. Entire reach is associated wetlands and floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, entire reach. Soil names: Mukilteo muck, drained (070), Tisch silt loam (120), Everett very gravelly sandy loam, 0 to 3% slopes (032), Norma fine sandy loam (75), Norma silt loam (076), Yelm fine sandy loam, 0 to 3% slopes (120), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: No. Bedrock age: Primarily Holocene, with a small area of Pleistocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age	Reach may include the following species: coho salmon, searun cutthroat, resident cutthroat, wood duck.	Reach may include the following habitats and site specifics: Wetlands and associated buffer (large wetland complex along creek/drainage to Deep Lake, artificial break defined at Millersylvania State Park line), Anadromous fish spawning and/or rearing (coho), 100-year flood plain (Lake landward from banks and adjacent to steam/drainage). The lake shoreline is essentially undeveloped and includes shrub/emergent vegetation. A stream and large associated wetland extends to Deep Lake (defined break at Millersylvania State Park line) through primarily agricultural land.	agriculture, residential, undeveloped, other	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	None
Allen Creek	Scott Lake	LSL-4-LSL-1	0.34	Steep slopes (>= 40% slope): No. Potential landslide area (>= 15% slope): Very small area in associated wetland to south. Surface hydrology: Large associated wetland in southeastern half of reach. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Mukilteo muck, drained (070), Yelm fine sandy loam, 0 to 3% slopes (126), Tisch silt loam (120), Cathcart gravelly loam, 3 to 15% slopes 9021), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age, Continental glacial till, Fraser-age.	Reach may include the following species: coho salmon, searun cutthroat, resident cutthroat, wood duck.	Reach may include the following habitats and site specifics: Wetland and associated buffers (east half of reach includes fringing vegetation and extensive associated wetlands), Anadromous fish spawning and/or rearing (coho), 100-year flood plain (). Shrub/emergent vegetation in places, otherwise largely modified as part of golf course (includes associated wetland) and other recreational uses.	undeveloped, residential, open space, recreation, other	RRR 1/5	conservancy	Golf course open to public	Modifications: piers/docks/boat ramps: yes (5), grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	None noted	Reach includes private recreational facilities including shoreline access. While roads occur within jurisdiction they do not occur in wetland or floodplain area.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Skookumchuck Lake	LSK-1-LSK-2	0.45	Steep slopes (>= 40% slope): Yes, much of reach. Potential landslide area (>= 15% slope): Yes, much of reach. Surface hydrology: The Skookumchuck River drains the Skookumchuck Lake. Drainage rate is modified by the Skookumchuck dam. Two narrow wetlands mapped in reach. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Wilkeson silt loam, 20 to 40% slopes (124), Wilkeson silt loam, 5 to 20% slopes (123), Rock outcrop-Pheeney complex, 40 to 90% slopes (096), Xerorthents, 0 to 5% slopes (125) Geologically sensitive area: No. Bedrock age: Eocene and Holocene. Lithology: Andesite flows and Alluvium.	Reach may include the following species: winter steelhead, resident cutthroat, rainbow trout, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffers (Lake only), Anadromous fish spawning and/or rearing (winter steelhead), Habitats (harlequin duck breeding area, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd)/Skookumchuck elk area), 100-year flood plain (Lake only). The reach is primarily the dam (unvegetated) and associated infrastructure with fringing trees between lake and access road (private) on each end of the dam.	open space	RRR 1/5, LTF	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: yes, armoring: no, Facilities: roads: yes (1), bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes a mapped barrier (ID - insufficient flow, dam). Zoning immediately downstream of dam is RRR1/5, otherwise all zoned LTF. Anadromous fish whose upstream extent is Skookumchuck Dam are not included in species/habitat even though they are technically within 200-ft - captured under Rivers. While roads occur in shoreline jurisdiction, they do not occur within wetland or floodplain area.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Skookumchuck Lake	LSK-2-LSK-1	8.77	Steep slopes (>= 40% slope): Yes, much of reach. Potential landslide area (>= 15% slope): Yes, large portion of reach. Surface hydrology: Turvey Creek, Fall Creek, Baumgard Creek, and 12 unnamed creeks flow into the Skookumchuck Lake in this reach. Four of the unnamed creeks have riverine wetlands mapped in their channels. The Skookumchuck River flows into Skookumchuck Lake on the far east side. High groundwater hazard: No. Limited groundwater concern: Yes, entire reach. Hydric soils: No. Soil names: Rock outcrop-Pheeney complex, 40 to 90% slopes (096), Wilkeson silt loam, 5 to 20% slopes (123), Baumgard loam, 10 to 40% slopes (009), Baumgard-Pheeney complex, 40 to 65% slopes (012), Wilkeson silt loam, 20 to 40% slopes (124), Pheeney-Rock outcrop complex, 40 to 65% slopes (082), Baumgard-Pheeney complex, 10 to 40% slopes (011), Pheeney-Rock outcrop complex, 65 to 90% slopes (083), Chehalis silt loam (026). Geologically sensitive area: No. Bedrock age: Eocene, Miocene-Oligocene. Lithology: Andesite flows and Gabbro.	Reach may include the following species: resident cutthroat, rainbow trout, mountain quail, osprey, peregrine falcon, bald eagle, eastern wild turkey, harlequin duck, Roosevelt elk and Rocky Mountain elk	Reach may include the following habitats and site specifics: Wetland and associated buffers (primarily Lake except at mouths of larger drainages), Anadromous fish spawning and/or rearing (winter steelhead), Habitats (harlequin duck breeding area, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd)/Skookumchuck elk area), 100-year flood plain (primarily Lake). Almost entirely forested shoreline and jurisdiction, mostly owned by the dam operation but some overlap with active forestry; there is also a mining operation on north side extending into shoreline zone (not clear whether active or just logistics in shoreline area, some forested buffer at this location). Most adjacent uplands are actively harvested (clearcuts/access roads), forested buffer exists but width is not consistent. A number of tributaries, including some fish bearing, enter the lake.	open space, timber/forestland, mining	LTF	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (at least 2 unmapped access roads (aerials)), bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Anadromous fish whose upstream extent is Skookumchuck Dam are not included in species/habitat even though they are technically within 200-ft - captured under Rivers. While roads occur in the shoreline jurisdiction, they do not occur within floodplain or wetland area.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
McAllister Creek	McAllister Creek	MCA-0-MCA-1	2.17	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: Associated wetlands, 100-year floodplain, Nisqually delta High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Sultan silt loam (115), Tacoma silt loam (116), Dystric Xerochrepts, 60 to 90 percent slopes (30), Hydraquents, tidal (45), Pilchuck loamy sand (84), Puget silt loam (88) Geologically sensitive area: No Bedrock age: Pleistocene; Holocene Lithology: continental glacial drift, Fraser-age; continental glacial drift, pre-Fraser; alluvium	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, sockeye, pink salmon, searun cutthroat, coho salmon, bald eagle, wood duck, band-tailed pigeon	Reach may contain the following habitats: wetlands and associated buffers (entire reach, expanding to the east within the park), anadromous fish spawning and/or rearing habitats (chum, chinook) waterfowl nesting and breeding habitat, estuarine zones, marine sloughs. The extent of the reach is within a 100-year floodplain. Natural, undisturbed salt marsh and wetland vegetation surrounds the creek on both shorelines.	undeveloped, parks	PP, RR 1/5	natural	Public access within the reach: Roads (I-5 and access ramps), Parks/Gov't Land (Nisqually National Wildlife Refuge and Nisqually Habitat Management Area)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (I-5 bridge on south end of reach break) , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009).	This reach of McAllister Creek exists entirely within the boundaries of the Nisqually Wildlife Refuge (both shorelines).
McAllister Creek	McAllister Creek	MCA-1-MCA-2	0.32	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Sultan silt loam (115), Dystric Xerochrepts, 60 to 90 percent slopes (30), Puget silt loam (88), Xerorthents, 0 to 5 percent slopes (125), Pilchuck loamy sand (84), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial drift, pre-Fraser	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, sockeye, pink salmon, searun cutthroat, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (creek only), anadromous fish spawning and/or rearing habitats (chinook, chum) waterfowl nesting and breeding habitat. The entire reach is within the 100-year floodplain. Most vegetated areas of shoreline are modified and adjacent to impervious surfaces on both shorelines.	commercial, agricultural, residential	HC	rural, conservancy	Public access within the reach: Roads (I-5 and Martin Way E)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (2), bridges: yes (I-5 bridge at north reach break, Martin Way E bridge at south reach break) , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: yes (it is estimated that impervious surfaces exceed 30% within this reach); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	None noted	The majority of this reach is comprised of a commercial park (transportation) .

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
McAllister Creek	McAllister Creek	MCA-2-MCA-3	0.26	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Sultan silt loam (115), Puget silt loam (88), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene Lithology: alluvium	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, sockeye, pink salmon, searun cutthroat, coho salmon, wood duck	Reach may contain the following habitats: wetlands and associated buffers (creek only), anadromous fish spawning and/or rearing habitats (chinook, chum) waterfowl nesting and breeding habitat. The entire reach is within the 100-year floodplain. Both shorelines exhibit evidence of modification/clearing for agricultural use.	agricultural	NA	rural, conservancy	Public access within the reach: Roads (Martin Way E)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (Martin Way E bridge at north reach break) , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	None noted	None
McAllister Creek	McAllister Creek	MCA-3-MCA-4	0.42	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Sultan silt loam (115), Dystric Xerochrepts, 60 to 90 percent slopes (30), Puget silt loam (88), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial drift, pre-Fraser	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, sockeye, pink salmon, searun cutthroat, coho salmon, wood duck	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), anadromous fish spawning and/or rearing habitats (chinook, chum), waterfowl nesting and breeding habitat. The extent of this reach is within the 100-year floodplain. The shoreline of the left bank (W) is heavily forested; the shoreline of the right bank (E) has been cleared for agricultural use up to the Creek boundary for most of the reach.	agricultural, timber/forest land, residential	NA, R 1/20	rural, conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no (see Notes column), armoring: no, Facilities: roads: no, bridges: no (see Notes column) , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Within the northern half of the reach on the left bank (W), an unnamed stream converges with McAllister Creek. On this stream the Nisqually Trout Farm Dam is located. A pedestrian bridge is also noted in aerial photographs mid-reach.
McAllister Creek	McAllister Creek	MCA-4-MCA-5	0.52	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands, stream (Hartman Creek) High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Dystric Xerochrepts, 60 to 90 percent slopes (30), Puget silt loam (88), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial drift, pre-Fraser	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, sockeye, pink salmon, searun cutthroat, coho salmon, wood duck, mink	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), anadromous fish spawning and/or rearing habitats (chinook, chum) waterfowl nesting and breeding habitat. The extent of this reach is within the 100-year floodplain. The left bank (W) shoreline exhibits modification of vegetation for residential use, with fragmented forest and some areas of clearing. The right bank (E) shoreline is cleared for agricultural use.	agricultural, undeveloped, residential	NA, RR 1/5	rural, conservancy	Public access within the reach: Roads (Steilacoom Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (under Steilacoom Rd at the south reach break) , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
McAllister Creek	McAllister Creek	MCA-5-MCA-6	0.44	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: Associated wetlands, 100-year floodplain, stream (little McAllister Creek) High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Semiahmoo muck (104), Dystric Xerochrepts, 60 to 90 percent slopes (30), Puget silt loam (88), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial drift, pre-Fraser	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, sockeye, pink salmon, searun cutthroat, coho salmon, wood duck, mink	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), anadromous fish spawning and/or rearing habitats (chinook, chum) waterfowl nesting and breeding habitat. The extent of this reach is within the 100-year floodplain. The shoreline of the left bank (W) is heavily forested; the shoreline of the right bank (E) has been cleared for agricultural use up to the Creek boundary for the entire reach.	agricultural	NA, RR 1/5	rural, conservancy	Public access within the reach: Roads (Steilacoom Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes, bridges: yes (under Steilacoom Rd at the north reach break) , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	None
McAllister Creek	McAllister Creek	MCA-6-MCA-7	0.89	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: Associated wetlands, 100-year floodplain High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Semiahmoo muck (104), Dystric Xerochrepts, 60 to 90 percent slopes (30), Mukilteo muck (69), Puget silt loam (88) Geologically sensitive area: No Bedrock age: Pleistocene; Holocene Lithology: continental glacial drift, Fraser-age; continental glacial drift, pre-Fraser; alluvium	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, sockeye, pink salmon, searun cutthroat, coho salmon, wood duck, mink	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), anadromous fish spawning and/or rearing habitats (chinook, chum), waterfowl nesting and brooding habitats. The northern extent of this reach is within the 100-year floodplain. Both shorelines of the Creek are bordered by dirt agricultural roads and cleared vegetation.	agricultural	NA, RR 1/5	rural, conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
McAllister Creek	McAllister Creek	MCA-7-MCA-8	0.28	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): No Surface hydrology: Associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Semiahmoo muck (104), Mukilteo muck (69) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial drift, Fraser-age	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, sockeye, pink salmon, searun cutthroat, coho salmon, wood duck, mink	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), anadromous fish spawning and/or rearing habitats (chinook, chum), waterfowl nesting and brooding habitats. Both shorelines are heavily forested and appear unmodified.	timber/forest land	RR 1/5, NA	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The south reach break is defined by 20 cfs flow point (headwaters of McAllister Creek).
McAllister Creek	McAllister Creek	MCA-8-MCA-9	n/a	Gradient: Low Confinement: Unconfined Habitat: Small Tributary; Lake/Pond Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: Associated wetlands High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Everett very gravelly sandy loam, 15 to 30 percent slopes (34), Hoogdal silt loam, 30 to 50 percent slopes (44), Mukilteo muck (69) Geologically sensitive area: Yes Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial drift, Fraser-age; continental glacial moraines, Fraser-age	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, sockeye, pink salmon, searun cutthroat, coho salmon, wood duck, mink	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), anadromous fish spawning and/or rearing habitats (chinook, chum), waterfowl nesting and brooding habitats. Both shorelines are heavily forested and appear unmodified.	commercial	RR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (1 culvert, 1 barrier), dams: no (see Notes column), armoring: no, Facilities: roads: no, bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species.	None noted	This reach is comprised of upstream wetlands associated with the headwaters of McAllister Creek. McAllister Spring Lake Dam is south of reach break, and is out of Thurston County jurisdiction.
Nisqually	Nisqually River	NI-0-NI-1	2.01	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes, majority of shoreline Surface hydrology: Associated wetlands, 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes, in delta Soil names: Tacoma silt loam (116), Hydraquents, tidal (45), Indianola loamy sand, 15 to 30 percent slopes (48), Pilchuck loamy sand (84), Puget silt loam (88), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene Lithology: Alluvium	Reach may contain the following species: bald eagle, mountain quail, pileated woodpecker, western gray squirrel, egret, green heron, snowy owl, wood duck, fall chinook, chum, summer steelhead, winter steelhead, pink, searun cutthroat, coho	Reach may contain the following habitats: anadromous fish spawning and/or rearing (chum, coho, chinook, pink), estuarine and riparian zones, riverine wetlands, waterfowl nesting and breeding sites, coastal salt marsh, brackish marshlands, and salt meadows. Wetlands (and associated buffers) extend throughout the reach. This reach is entirely within the 100-year floodplain. Since this reach falls within a natural preserve, relatively low human disturbance of habitat is evident. Vegetation on the left bank (west shoreline) is mostly wetland emergent and shrub-scrub with some trees.	parks	PP	natural, conservancy	Public access within the reach: roads (I-5), Parks/Gov't Land (Nisqually National Wildlife Refuge)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no; Facilities: roads: yes (1), bridges: yes (1), I-5 bridge crosses the Nisqually at the south reach break, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009). The reach is located within The Nisqually Wildlife Refuge. Continue use as preserve.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Nisqually River	NI-10-NI-11	1.34	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Everett very gravelly sandy loam, 3 to 15 percent slopes (33), Everett very gravelly sandy loam, 30 to 50 percent slopes (35), Indianola loamy sand, 0 to 3 percent slopes (46), Pilchuck loamy sand (84) Geologically sensitive area: No Bedrock age: Pleistocene Lithology: Continental glacial drift, Pre-Fraser	Reach may contain the following species: bald eagle, fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, western gray squirrel	Reach may contain the following habitats: wetlands and associated buffers are continuous throughout the reach, anadromous fish spawning and/or rearing (chum, coho, chinook, pink, winter steelhead). The reach is entirely within the 100-year floodplain. The majority of the reach is forested, with portions cleared for rural residential or agricultural use.	agricultural, commercial	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Nisqually	Nisqually River	NI-11-NI-12	3.69	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Sultan silt loam (115), Cagey loamy sand (20), Everett very gravelly sandy loam, 0 to 3 percent slopes (32), Everett very gravelly sandy loam, 3 to 15 percent slopes (34), Indianola loamy sand, 15 to 30 percent slopes (48), Norma silt loam (76), Pilchuck loamy sand (84) Geologically sensitive area: No Bedrock age: Holocene, Pleistocene Lithology: Continental glacial drift, Pre-Fraser; Continental glacial outwash, gravel, Fraser-age; Alluvium	Reach may contain the following species: bald eagle, fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, osprey, great blue heron	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach) and anadromous fish spawning and/or rearing (coho, chinook, pink, winter steelhead, chum) habitat. The entire reach falls within the 100-year floodplain. The shoreline is heavily forested for the extent of this reach.	undeveloped	MR	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	This reach is Fort Lewis property.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually	Nisqually River	NI-12-NI-13	1.24	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Everett very gravelly sandy loam, 0 to 3 percent slopes (32), Indianola loamy sand, 3 to 15 percent slopes (47), Indianola loamy sand, 15 to 30 percent slopes (48), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Pleistocene Lithology: Continental glacial outwash, gravel, Fraser-age; Alluvium; Continental glacial drift, Pre-Fraser	Reach may contain the following species: bald eagle, fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The entire reach falls within the 100-year floodplain. The shoreline is characterized by residential use with fragmented tree stands and areas of clearing.	transportation, residential, undeveloped	R LAMIRD 1/2	rural	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: yes (Briar ST SE), bridges: no; railroads: no, marinas: no, utilities: yes (pipeline); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality.	None noted	The Nisqually Pines Community Club property is adjacent to the River within this reach and provides semi-public access to the gated Nisqually Pines community.
Nisqually	Nisqually River	NI-13-NI-14	2.96	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Indianola loamy sand, 3 to 15 percent slopes (47), Nisqually loamy fine sand, 3 to 15 percent slopes (74), Norma silt loam (76), Pilchuck loamy sand (84), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Pleistocene, Holocene Lithology: Continental glacial outwash, gravel, Fraser-age; Continental glacial till, Fraser-age; Alluvium	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). Oak-conifer forest/woodland canopy and oak-dominant forest habitat is present within the southern portion of the reach on both shorelines. The entire reach falls within the 100-year floodplain. The shoreline is heavily forested except in areas cleared for powerlines and railroads.	agricultural, residential, undeveloped	RRR 1/5	conservancy	Public access within the reach: roads (State Hwy 507)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: yes (1), bridges: yes (at crossing of State Hwy 507 at south reach break); railroads: yes (2), marinas: no, utilities: yes (powerlines); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity.	None noted	Several parcels within this reach are in private conservation and are owned by the Nisqually Land Trust.
Nisqually	Nisqually River	NI-14-NI-15	2.20	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetland High groundwater hazard: Yes Limited groundwater concern: No	Reach may contain the following species: bald eagle, fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead), waterfowl breeding and overwintering habitat. The	recreational, residential, undeveloped	LTA	conservancy	Public access within the reach: roads (State Hwy 507)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: yes (1), bridges: yes (at crossing of State Hwy 507 at north reach break); railroads: no, marinas: no, utilities: yes (powerlines, fiber optic); Adjacent land uses: agriculture: yes, aquaculture:	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development	None noted	There is a fish barrier within this reach (IC).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				Hydric soils: No Soil names: Spanaway stony sandy loam, 0 to 3 percent slopes (112), Spanaway stony sandy loam, 3 to 15 percent slopes (113), Sultan silt loam (115), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene Lithology: Alluvium; Continental glacial till, Fraser-ager; Continental glacial drift, Pre-Fraser		entire reach is within the 100-year floodplain. The shoreline of this reach is utilized for agriculture and exhibits large areas of clearing.					no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May impact water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species.		
Nisqually	Nisqually River	NI-15-NI-16	2.69	Gradient: Low Confinement: Unconfined Habitat: Large Tributary, Side Channel Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Mukilteo muck, drained (70), Newberg loam (72), Puyallup silt loam (89), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene, Pleistocene Lithology: Alluvium; Continental glacial outwash, Fraser-age; Continental glacial drift, Pre-Fraser	Reach may contain the following species: bald eagle, fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon	Reach may contain the following habitats: wetlands and associated buffers, anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead), waterfowl concentration area. The entire reach is within the 100-year floodplain. Most of the reach is heavily forested, with some areas exhibiting clearing upland of tree stands on the shoreline.	commercial, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: yes (Centralia Dam), armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function.	None noted	A fish passage barrier (PD) exists at the south reach break at the confluence of a Centralia Canal and the Nisqually River.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually	Nisqually River	NI-16-NI-17	1.19	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetland. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Baldhill very stony sandy loam, 30 to 60 percent slopes (8), Pilchuck loamy sand (84), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Pleistocene, Holocene, Miocene, middle to upper Lithology: Continental glacial till, Fraser-age; Alluvium; Continental sedimentary deposits or rocks	Reach may contain the following species: bald eagle, fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead), waterfowl concentration area. The entire reach falls within the 100-year floodplain. The shoreline is heavily forested for the length of the reach.	commercial, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: yes (Centralia Dam), armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function.	None noted	A fish passage barrier (PD) exists at the north reach break at the confluence of a Centralia Canal and the Nisqually River. Several parcels within this reach are owned by the Nisqually River Land Trust.
Nisqually	Nisqually River	NI-17-NI-18	0.98	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetland. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Puyallup silt loam (89), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene, Miocene, middle to upper Lithology: Alluvium; Continental sedimentary deposits or rocks	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (in the northern half of the reach), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The 100-year floodplain widens to encompass the wetland in the north half of the reach. The shoreline exhibits uninterrupted forest for the length of the reach that is adjacent to the Nisqually River, but forest cover is cleared in areas of the associated wetland that stretches extensively to the southwest.	undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Several parcels within this reach are owned by the Nisqually River Land Trust. The reach includes associated wetland that stretches southwest of reach.
Nisqually	Nisqually River	NI-18-NI-19	0.33	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene Lithology: Alluvium	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The entire reach is within the 100-year floodplain. The shoreline is undeveloped and heavily forested for the extent of this reach.	timber/forest land	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually	Nisqually River	NI-19-NI-20	1.72	Gradient: Low Confinement: Unconfined Habitat: Large Tributary, Side Channel Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: No Soil names: Pilchuck loamy sand (84), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene, Pleistocene Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, pileated woodpecker, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The majority of the reach falls within the 100-year floodplain. The shoreline appears heavily forested, with minimal development within the reach.	timber/forest land, undeveloped, residential, agricultural	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Several parcels in this reach are in private conservation, owned by the Nisqually Land Trust or Tatrimina Trust.
Nisqually	Nisqually River	NI-1-NI-2	1.13	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes, intermittent Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Pilchuck loamy sand (84), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene Lithology: Alluvium	Reach may contain the following species: bald eagle, waterfowl species, western gray squirrel, fall chinook, chum, summer steelhead, winter steelhead, pink, searun cutthroat, coho, reticulate sculpin, prickly sculpin, torrent sculpin, riffle sculpin, large scale sucker, three spine stickleback, crayfish	Reach may contain the following habitats: wetlands and associated buffers (found within the northern half of the reach), anadromous fish spawning and/or rearing (chum, coho, chinook, pink), waterfowl nesting and breeding sites, Nisqually Delta Waterfowl area, upper Nisqually bald eagle use area. This reach is almost entirely within the 100-year floodplain . Portions of this reach are heavily forested. There are also portions of the reach exhibiting residential and commercial use with fragmented tree stands or no vegetation.	residential, commercial	RR 1/5	rural, conservancy	Public access within the reach: roads (I-5, Old Pacific Hwy SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no; Facilities: roads: yes (2), bridges: yes (4), I-5 bridge crosses the Nisqually at the north reach break, Old Pacific Hwy crosses the river at the South reach break; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	None noted	There is a water quality gauge for the Nisqually River at the south reach break.
Nisqually	Nisqually River	NI-20-NI-21	0.74	Gradient: Low Confinement: Unconfined Habitat: Large Tributary, Side Channel Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Sultan silt loam (115), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene; Miocene, middle to upper; Pleistocene Lithology: alluvium; continental glacial moraines, Fraser-age; continental sedimentary deposits or rocks	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (mid-reach a wetland connects two branches of the river), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The entire reach is within the 100-year floodplain. Parts of the shoreline show evidence of rural residential use with some cleared areas.	undeveloped, residential	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	The Nisqually Land Trust owns all property within this reach for conservation.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually	Nisqually River	NI-21-NI-22	0.35	Gradient: Low Confinement: Unconfined Habitat: Large Tributary; Side Channel Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Baldhill very stony sandy loam, 15 to 30 percent slopes (7), Baldhill very stony sandy loam, 30 to 60 percent slopes (8), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene; Miocene, middle to upper Lithology: alluvium; continental sedimentary deposits or rocks	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The extent of this reach is within the 100-year floodplain. The shoreline appears heavily forested.	timber/forest land, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The Nisqually Land Trust owns most of the property within this reach for conservation.
Nisqually	Nisqually River	NI-22-NI-23	1.11	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Baldhill very stony sandy loam, 30 to 60 percent slopes (8), Puyallup silt loam (89), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Miocene, middle to upper; Pleistocene Lithology: alluvium; continental glacial moraines, Fraser-age; continental sedimentary deposits or rocks	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (near the confluence of Powell Creek and the Nisqually River), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The majority of the reach is within the 100-year floodplain. The shoreline is heavily forested for the extent of the reach.	timber/forest land, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: yes (3 culverts , all barriers), dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The Nisqually Land Trust owns most of the property within this reach for conservation.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually	Nisqually River	NI-23-NI-24	0.65	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): No Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Everett very gravelly sandy loam, 0 to 3 percent slopes (32), Norma fine sandy loam (75), Pilchuck loamy sand (84), Puyallup silt loam (89), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Miocene, middle to upper; Pleistocene Lithology: alluvium; continental sedimentary deposits or rocks; continental glacial moraines, Fraser-age	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (extending from the river in the south portion of the reach), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The entire reach is within the 100-year floodplain. Parcels along the shoreline appear to be used for agricultural purposes, but a forested shoreline is maintained.	timber/forest land, undeveloped, agriculture, residential	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Historical data indicates the presence of flooded buildings within this reach. The Nisqually Land Trust owns parcels within this reach for private conservation.
Nisqually	Nisqually River	NI-24-NI-25	3.80	Gradient: Low; Steep Confinement: Unconfined; Confined Habitat: Large Tributary; Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Baldhill very stony sandy loam, 15 to 30 percent slopes (7), Pheeney gravelly loam, 30 to 65 percent slopes (80), Pilchuck loamy sand (84), Puyallup silt loam (89), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Miocene, middle to upper; Pleistocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age; continental sedimentary deposits or rockscontinental sedimentary deposits or rocks	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (for most of the reach length), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead) . Old growth/mature forest and snag rich areas are associated with this reach. The entire reach is within the 100-year floodplain. The shoreline in this reach is characterized by use as LTF, so forested areas and areas of clearing are expected.	timber/forest land, undeveloped	LTF	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no (see Notes Column), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Some shoreline parcels within this reach are utilized as LTF and may exhibit clearing or forest cover. A tributary which joins the Nisqually River is listed as a 303d waterway for dissolved oxygen. As mapped, the 303d designation does not extend into the Nisqually.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually	Nisqually River	NI-25-NI-26	1.56	Gradient: Low Confinement: Unconfined; Confined Habitat: Large Tributary; Small Tributary; Side Channel Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: No Soil names: Baldhill very stony sandy loam, 3 to 15 percent slopes (6), Baldhill very stony sandy loam, 15 to 30 percent slopes (7), Baldhill very stony sandy loam, 30 to 60 percent slopes (8), Pheeney gravelly loam, 30 to 65 percent slopes (80) Geologically sensitive area: No Bedrock age: Miocene, middle to upper; Holocene; Oligocene-Eocene Lithology: continental sedimentary deposits or rocks; alluvium; volcaniclastic deposits or rocks	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (river only),anadromous fish spawning and/or rearing (chum, coho, chinook, pink, winter steelhead) habitats. Old-growth/mature forest and snag rich areas are associated with this reach. Within this reach, the 100-year floodplain extends to the banks of the river only. The shoreline associated with this reach is heavily forested, with areas of clearing possible due to forestry practices.	timber/forest land, undeveloped	LTF	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Some shoreline parcels within this reach are utilized as LTF and may exhibit clearing or forest cover. A fish passage barrier (IF) is not confirmed by the aerial photograph, but is located at the confluence of a tributary with the Nisqually River mid-reach.
Nisqually	Nisqually River	NI-26-NI-27	1.53	Gradient: Low Confinement: Confined; Unconfined Habitat: Large Tributary; Side Channel; Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain; associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Baldhill very stony sandy loam, 3 to 15 percent slopes (6), Baldhill very stony sandy loam, 15 to 30 percent slopes (7), Baldhill very stony sandy loam, 30 to 60 percent slopes (8), Pilchuck loamy sand (84), Riverwash (95) Geologically sensitive area: No Bedrock age: Miocene, middle to upper; Oligocene-Eocene Lithology: continental sedimentary deposits or rocks; volcaniclastic deposits or rocks	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, turkey vulture, riffle sculpin, lamprey, mountain quail, osprey	Reach may contain the following habitats: wetlands and associated buffers (river only for most of the reach, but one wetland extends west from the River mid-reach), anadromous fish spawning and/or rearing habitat (coho, chinook, pink, winter steelhead). The extent of the shoreline is within the 100-year floodplain and is heavily forested.	undeveloped	PP	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no (see Notes column), contaminated sediments: no, shellfish harvest ratings: n/a	None noted		The property within this reach is owned by the Washington State Parks Department. The Mashel River, located in Pierce County, flows into the Nisqually River within this reach. The Mashel River is listed as a 303d waterway for temperature. As mapped, the 303d designation does not extend into the Nisqually.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually	Nisqually River	NI-27-NI-28	1.96	Gradient: Low, Moderate, Steep Confinement: Confined, Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: No Soil names: Baldhill very stony sandy loam, 3 to 15 percent slopes (6), Baldhill very stony sandy loam, 15 to 30 percent slopes (7), Baldhill very stony sandy loam, 30 to 60 percent slopes (8), Pheeney-Rock outcrop complex, 40 to 65 percent slopes (82) Geologically sensitive area: No Bedrock age: Pleistocene; Oligocene-Eocene; Miocene-Oligocene Lithology: continental glacial outwash, Fraser-age; volcaniclastic deposits or rocks; intrusive andesite	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, osprey, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (coho, chinook, pink, winter steelhead). Old growth/mature forest and snag rich areas are associated with this reach. A section of the north shoreline of this reach is within the 100-year floodplain. The shoreline associated with this reach is zoned LTF and may be cleared or forested as a result.	timber/forest land, undeveloped	LTF	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: yes (La Grande Dam at the south reach break), armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Two fish-passage barriers (IC and La Grande Dam) exist within this reach. The adjacent shoreline property is utilized as LTF, and may be cleared or forested as a result.
Nisqually	Nisqually River	NI-28-NI-29	1.41	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: n/a High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: No Soil names: Pheeney-Rock outcrop complex, 40 to 65 percent slopes (82) Geologically sensitive area: No Bedrock age: Miocene-Oligocene; Pleistocene Lithology: intrusive andesite; alpine glacial drift, pre-Fraser	Reach may contain the following species: resident cutthroat, searun cutthroat, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (river only). Old growth/mature forest and snag rich areas are associated with this reach. The shoreline within this reach is zoned LTF and may be cleared or forested as a result.	undeveloped	LTF	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: yes (La Grande Dam at the north reach break), armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	La Grande Dam is positioned at the north reach break and functions as a fish passage barrier. The adjacent shoreline property is utilized as LTF, and may be cleared or forested as a result.
Alder Lake	Nisqually River	NI-29-NI-30	0.29	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: n/a High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: No Soil names: Pheeney-Rock outcrop complex, 40 to 65 percent slopes (82) Geologically sensitive area: No Bedrock age: Pleistocene Lithology: alpine glacial drift, pre-Fraser	Reach may contain the following species: resident cutthroat, searun cutthroat, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (river only), old growth/mature forest and snag rich areas are associated with this reach. Shoreline appears heavily forested and undeveloped.	undeveloped	LTF	conservancy	None noted within reach. Primary access located within Pierce County	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: yes (Alder Dam at the south reach break), armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Alder Lake Dam is positioned at the south reach break and functions as a fish passage barrier.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually	Nisqually River	NI-2-NI-3	0.50	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes, majority of reach Surface hydrology: Associated wetlands, 100-year floodplain High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Xerorthents, 0 to 5 percent slopes (125), Pilchuck loamy sand (84), Puyallup silt loam (89) Geologically sensitive area: No Bedrock age: Holocene Lithology: Alluvium	Reach may contain the following species: bald eagle, fall chinook, chum, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho	Reach may contain the following habitats: wetlands and associated buffers (for the majority of the reach), anadromous fish spawning and/or rearing (chum, coho, chinook, pink, winter steelhead). The majority of the reach is within the 100-year floodplain. The shoreline vegetation within this reach exhibits fragmented tree stands and some shrubs, with many areas cleared for residential use.	undeveloped, parks, residential, recreation	RR 2/1, RR 1/5	rural, conservancy	Public access within the reach: launch (WDFW) Roads: Old Pacific Hwy SE	Modifications: piers/docks/boat ramps: yes (WDFW), groins/jetties: no, culverts: no, dams: no, armoring: no; Facilities: roads: yes (3, Old Pacific Highway SE, 6th Avenue SE, and Riverside Drive SE), bridges: yes (2), Old Pacific Hwy bridge crosses the Nisqually at the north reach break, and a railroad crosses the river mid-reach; railroads: yes (1), marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	None noted	There is a water quality gauge for the Nisqually River near the railroad bridge crossing.
Nisqually	Nisqually River	NI-3-NI-4	0.31	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes, majority of reach Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Xerorthents, 0 to 5 percent slopes (125), Pilchuck loamy sand (84) Geologically sensitive area: No Bedrock age: Holocene Lithology: Alluvium	Reach may contain the following species: bald eagle, fall chinook, chum, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho	Reach may contain the following habitats: wetlands and associated buffers (extending for the entire reach), anadromous fish spawning and/or rearing (chum, coho, chinook, pink, winter steelhead). The extent of the reach is within the 100-year floodplain. A railroad parallels the shoreline, with unfragmented forest between tracks and the river for the extent of the reach.	undeveloped, residential	RR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Nisqually	Nisqually River	NI-4-NI-5	0.99	Gradient: Low Confinement: Unconfined Habitat: Large Tributary; Side Channel Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes, minimal Surface hydrology: 100-year floodplain, associated wetlands, side channel. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Sultan silt loam (115), Xerorthents, 0 to 5 percent slopes (125), Pilchuck loamy sand (84), Puyallup silt loam (89), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene, Pleistocene Lithology: Alluvium; Continental glacial outwash, Fraser-age; Continental glacial drift, Fraser-age	Reach may contain the following species: bald eagle, fall chinook, chum, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho	Reach may contain the following habitats: wetlands and associated buffers (within the majority of the reach length), anadromous fish spawning and/or rearing (chum, coho, chinook, pink, winter steelhead). The northern portion of this reach is within the 100-year floodplain. The shoreline is heavily forested for the entire extent of the reach.	residential, undeveloped	RR 1/5, LTA	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually	Nisqually River	NI-5-NI-6	2.96	Gradient: Low Confinement: Unconfined Habitat: Large Tributary, Side Channel Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: Associated wetlands, 100-year floodplain, braiding/side channels. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Everett very gravelly sandy loam, 3 to 15 percent slopes (33), Everett very gravelly sandy loam, 30 to 50 percent slopes (35), Pilchuck loamy sand (84), Riverwash (95) Geologically sensitive area: No Bedrock age: Pleistocene, Holocene Lithology: Alluvium; Continental glacial drift, Fraser-age; Continental glacial outwash, Fraser-age; Continental glacial drift, Pre-Fraser	Reach may contain the following species: bald eagle, fall chinook, chum, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho, riffle sculpin, Taylor's (whulge) checkerspot	Reach may contain the following habitats: wetlands and associated buffers (for the majority of the reach), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The shoreline within this reach is heavily forested.	agriculture, undeveloped, residential	RR 1/5, LTA	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	The entire reach is Nisqually Tribal Land. Two hatcheries (Kalama Creek Hatchery and Clear Creek Hatchery) are found within this reach.
Nisqually	Nisqually River	NI-6-NI-7	1.13	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Everett very gravelly sandy loam, 15 to 30 percent slopes (34), Pilchuck loamy sand (84), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene, Pleistocene Lithology: Alluvium; Continental glacial drift, Pre-Fraser	Reach may contain the following species: bald eagle, fall chinook, chum, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho	Reach may contain the following habitats: wetlands and associated buffers (for the entire reach), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The entire reach is within the 100-year floodplain. The shoreline within this reach is heavily forested.	undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	This reach is under Fort Lewis jurisdiction.
Nisqually	Nisqually River	NI-7-NI-8	0.17	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Everett very gravelly sandy loam, 3 to 15 percent slopes (33), Everett very gravelly sandy loam, 15 to 30 percent slopes (34) Geologically sensitive area: No Bedrock age: Pleistocene Lithology: Continental glacial drift, Pre-Fraser	Reach may contain the following species: bald eagle, fall chinook, chum, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho	Reach may contain the following habitats: wetlands and associated buffers (for the entire reach), anadromous fish spawning and/or rearing (chum, coho, chinook, pink, winter steelhead). The entire reach is within the 100-year floodplain. The shoreline within this reach is heavily forested.	undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Entire reach composed of parcels in private conservation.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Nisqually River	NI-8-NI-9	0.12	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Everett very gravelly sandy loam, 3 to 15 percent slopes (33) Geologically sensitive area: No Bedrock age: Pleistocene Lithology: Continental glacial drift, Pre-Fraser	Reach may contain the following species: bald eagle, fall chinook, chum, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho	Reach may contain the following habitats: wetlands and associated buffers (for the entire reach), anadromous fish spawning and/or rearing (chum, coho, chinook, pink, winter steelhead). The entire reach is within the 100-year floodplain. The shoreline within this reach is heavily forested.	undeveloped/ commercial	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Entire reach composed of parcels in private conservation.
Thompson Creek	Nisqually River	NI-9-NI-10	0.21	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetland High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Everett very gravelly sandy loam, 3 to 15 percent slopes (33) Geologically sensitive area: No Bedrock age: Pleistocene Lithology: Continental glacial drift, Pre-Fraser	Reach may contain the following species: fall chinook, chum salmon, summer steelhead, winter steelhead, pink salmon, searun cutthroat, coho salmon, bald eagle	Reach may contain the following habitats: wetlands and associated buffers (for the entire reach), anadromous fish spawning and/or rearing habitat (chum, coho, chinook, pink, winter steelhead). The entire reach is within the 100-year floodplain. Most of the shoreline within this reach is heavily forested. Clearing of shoreline vegetation is evident adjacent to the intersection of Centralia Canal and the Nisqually River.	commercial	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no Facilities: roads: no, bridges: no; railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Centralia Canal joins the Nisqually River at the southern reach break, with an associated fish passage barrier.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Percival Creek	Black Lake Ditch	BL-0-BL-1	0.32	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Black Lake meets south end of reach. Black Lake Ditch branches at north end of reach. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age, Continental glacial drift, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach). The reach falls entirely within the 100-year floodplain. The vegetation on either shoreline appears undeveloped (shrub-scrub dominated) but is partially cleared surrounding power lines mid-reach.	undeveloped, residential	SFLDR 4-7/1, GB	Percival SMA	Public access within the reach: roads (Black Lake-Belmore Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (a bridge is associated with the crossing of Black Lake ditch by Black-Belmore Rd SW at the outflow of the ditch from Black Lake), railroads: no, marinas: no, utilities: yes (power lines); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (Black Lake Ditch is on the 303d list for dissolved oxygen, pH, and temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Water quality within this reach is impacted (Ecology 303d list).	None noted	To the north west of this reach (outside of Thurston County jurisdiction) there is a mine. There is a water quality stream gauge within this reach.
Black Lake	Deschutes River	DE-0-DE-1	0.90	Gradient: Low. Confinement: Unconfined. Habitat: Large tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Unnamed tributary flows into the Deschutes River. Associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High bank erosion potential, and signs of river avulsion. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Puyallup silt loam (089), Indianola loamy sand, 15 to 30% slopes (048), Indianola loamy sand, 0 to 3% slopes (046), Sultan silt loam (115), Puget silt loam (088), Pilchuck loamy sand (084), Cagey loamy sand (020). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook). The reach falls entirely within the 100-year floodplain. Vegetation on both sides of the Deschutes is forested and appears unmodified.	residential	OS, SFL 4-7	rural, conservancy	Public access within the reach: roads (Henderson Blvd SE), trails (bikeway)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (1 culvert is located within jurisdiction under Henderson Blvd SE , but is not within the Deschutes River proper; 1 culvert, 0 barriers), dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (a bridge is associated with the crossing of the Deschutes River by Henderson Blvd SE at the east reach break), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature in eastern half of reach), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list).	None noted	Only the left bank (SW) is within Thurston County jurisdiction; Right bank (NE) is in City of Tumwater.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-10-DE-11	0.61	Gradient: Low. Confinement: Majority is unconfined. Small section at downstream end is moderately confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetlands. Wide 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Yelm fine sandy loam, 15 to 30% slopes (128), Yelm fine sandy loam, 0 to 3% slopes (126), Sultan silt loam (115), Norma silt loam (076), Everett very gravelly sandy loam, 30 to 50% slopes (035), Everett very gravelly sandy loam, 0 to 3% slopes (032), Indianola loamy sand, 3 to 15% slopes (047), Chehalis silt loam (026). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon, wood duck	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire extent of this reach is within the 100-year floodplain. Both shorelines appear unmodified, with some areas containing scrub-shrub vegetation and others forested.	forest/timber land, commercial, undeveloped, residential	RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: yes (under railroad crossing of Deschutes River near the east reach break), railroads: (1), marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature, dissolved oxygen, fecal coliform), contaminated sediments: no, shellfish harvest ratings: n/a	Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Railroad bridge is not mapped on ArcMap.
Deschutes River	Deschutes River	DE-11-DE-12	0.81	Gradient: Low. Confinement: Northern half of reach is Unconfined. Southern half is Moderately Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetlands. Wide 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Everett very gravelly sandy loam, 0 to 3% slopes (032), Everett very gravelly sandy loam, 3 to 15% slopes (033), Everett very gravelly sandy loam, 15 to 30% slopes (034), Newberg loam (072), Sultan silt loam (115), Norma silt loam (076), Shalcar variant muck (106), Godfrey silty clay loam (041), Everett very gravelly sandy loam, 30 to 50% slopes (035), Newberg fine sandy loam (071). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon, wood duck, riffle sculpin, torrent sculpin	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead), wood duck breeding habitat. The entire extent of this reach is within the 100-year floodplain. The majority of this reach exhibits forested shorelines, with clearing evident on the right bank (E) in the northern portion of the reach.	residential, undeveloped, timber/forest land	RRR 1/5	conservancy	Public access within the reach: roads (Rich Rd SE), trails (bikeway)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (under Rich Rd SE crossing of Deschutes River mid-reach), railroads: no, marinas: no, utilities: yes (Williams pipeline); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature, dissolved oxygen, fecal coliform), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	A water quality gauge (stick gauge) is present in the Deschutes River at the Rich Rd SE bridge.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-12-DE-13	2.25	Gradient: Low. Confinement: Majority of reach is Unconfined. Southern end of reach is Moderately Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Unnamed tributary. Side channel. Associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Shalcar muck (105), Everett very gravelly sandy loam, 15 to 30% slopes (034), Newberg fine sandy loam (071), Godfrey silty clay loam (041), Maytown silt loam (064), Mukilteo muck, drained (033), Everett very gravelly sandy loam, 30 to 50% slopes (035), Everett very gravelly sandy loam, 0 to 3% slopes (032), Baldhill very stony sandy loam, 0 to 3% slopes (005), Spanaway-Nisqually complex, 2 to 10% slopes (114), Semiahmoo muck (104), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age, Continental glacial moraines, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach, with a large wetland on the left bank (W) to the north and within the parcel designated as a mine), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead), oak-conifer forest/woodland canopy (southeast of the mined parcel on the left bank). The entire reach is within the 100-year floodplain. Segments of the reach shorelines fluctuate between areas that are heavily forested, cleared, and intermediate levels of shoreline vegetation modification.	residential, agricultural, timber/forest land	RRR 1/5, LTA	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature, dissolved oxygen, fecal coliform), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list). Mining related uses may alter hydrology and sediment processes due to loss of vegetative cover. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Mid-reach on the left bank (W) a parcel is classified as a mine (sand & gravel). A portion of this parcel is designated as oak-conifer/woodland canopy and conifer deciduous forests on the Arcmap, although aerial photographs show this area to be cleared for mining.
Deschutes River	Deschutes River	DE-13-DE-14	1.29	Gradient: Low. Confinement: Moderately Confined in downstream half. Confined in upstream half. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Unnamed tributary. Associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 15 to 30% slopes (034), Everett very gravelly sandy loam, 3 to 15% slopes (033), Newberg fine sandy loam (071), Everett very gravelly sandy loam, 0 to 3% slopes (032), Chehalis silt loam (026), Everett very gravelly sandy loam, 30 to 50% slopes (035), Indianola loamy sand, 0 to 3% slopes (046), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Godfrey silty clay loam (041), Tenino gravelly loam, 15 to 30% slopes (118). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. The entire left bank (S) of the reach is designated as urban oak canopy and conifer deciduous forest. The right bank (N) shoreline is heavily forested for the extent of the reach; the left bank exhibits residential land use, with fragmented forest and some clearing to the shoreline.	residential, undeveloped	RRR 1/5, PP, RLAMIRD 1/1	conservancy	Public access within the reach: parks (Deschutes River Park)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	Continue use as a park	Most of the right bank (N) of this reach is within the Deschutes River Park (undeveloped).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				outwash, gravel, Fraser-age, Continental glacial outwash, sand, Fraser-age, Alpine glacial outwash, pre-Fraser.										
Deschutes River	Deschutes River	DE-14-DE-15	0.30	Gradient: Low. Confinement: Confined in downstream half of reach. Unconfined in upstream half. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Unnamed tributary. Associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Everett very gravelly sandy loam, 15 to 30% slopes (034), Everett very gravelly sandy loam, 3 to 15% slopes (033), Newberg fine sandy loam (071), Everett very gravelly sandy loam, 0 to 3% slopes (032), Chehalis silt loam (026), Everett very gravelly sandy loam, 30 to 50% slopes (035), Indianola loamy sand, 0 to 3% slopes (046), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Godfrey silty clay loam (041), Tenino gravelly loam, 15 to 30% slopes (118). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age, Alpine glacial outwash, pre-Fraser.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. Both shorelines exhibit forest or wetland emergent vegetation.	residential, undeveloped, timber/forest land	RRR 1/5, PP	conservancy	Public access within the reach: trails (Chehalis Western County trail), parks (Deschutes River Park)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	Continue use as a park	The right bank (N) of this reach is within the Deschutes River Park (undeveloped).
Deschutes River	Deschutes River	DE-15-DE-16	3.16	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Three unnamed tributaries. Associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Newberg fine sandy loam (071), Newberg loam (072), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Everett very gravelly sandy loam, 0 to 3% slopes (032), Baldhill very stony sandy loam, 0 to 3% slopes (005), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007), Godfrey silty clay loam (041), Everett very gravelly sandy loam, 3 to 15% slopes (033), Semiahmoo muck (104), McKenna gravelly silt loam, 0 to 5% slopes (065), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Norma silt	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach on both shorelines), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. Shorelines are mostly forested, with some evidence of fragmentation and clearing on the left bank (W) in the northern third of the reach.	residential, undeveloped, timber/forest land	RRR 1/5	conservancy	Public access within the reach: roads (Waldrick Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (one bridge is associated with the crossing of Waldrick Rd SE within the northern third of this reach, and one is associated with the railroad crossing mid-reach), railroads: yes (1), marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity. Water quality within this reach is impacted (Ecology 303d list). Timber or	None noted	A water quality gauge (stick gauge) is present in the Deschutes River at the Waldrick Rd SE bridge. The bridge associated with the railroad crossing is not mapped.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				loam (076), Everett very gravelly sandy loam, 15 to 30% slopes (034). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age, Continental glacial till, Fraser-age.								forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.		
Deschutes River	Deschutes River	DE-16-DE-17	1.12	Gradient: Low. Confinement: Unconfined. Habitat: Large Habitat. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Silver Creek and six unnamed tributaries join the Deschutes River. Associated wetlands. 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Tenino gravelly loam, 30 to 60% slopes (119), Godfrey silty clay loam (041), Norma silt loam (076), Everett very gravelly sandy loam, 0 to 3% slopes (032), Newberg loam (072), Spanaway stony sandy loam, 0 to 3% slopes (112), Spanaway stony sandy loam, 3 to 15% slopes (026), Spanaway-Nisqually complex, 2 to 10% slopes (114). Geologically sensitive area: No. Bedrock age: Holocene, Pleistocene, and Eocene, middle to upper. Lithology: Alluvium, Marine sedimentary rocks, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon, elk, reticulate sculpin	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach, often stretching across both shorelines. Silver Creek extends into an elongated wetland complex at the eastern portion of its reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead), elk overwintering habitat. The entire extent of this reach is within the 100-year floodplain. The Deschutes River is heavily forested on both shorelines for the majority of the reach. The left bank (SW) shows no sign of development; a few structures are found on the right bank (NE) shoreline. Silver Creek exhibits some clearing on its left bank (S) at the eastern portion of the reach and surrounding the wetland at the eastern terminus, but is otherwise undeveloped.	residential, undeveloped, timber/forest land, agricultural	RRR 1/5	conservancy	Public access within the reach: roads (Silver Creek Dr)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (culverts are associated with the crossing of Silver Creek Dr over Silver Creek, 3 culverts, 0 barriers), dams: yes (Schoenbachle Dam on Silver Creek), armoring: no, Facilities: roads: yes (3 roads, two private), bridges: yes (a bridge is associated with the crossing of Silver Creek Dr over Silver Creek), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature in Deschutes), contaminated sediments: no, shellfish harvest ratings: n/a	Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species. Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	This reach is categorized as being 'double channel jurisdiction.' The length of Silver Creek that parallels this Deschutes River reach is included within this reach break description.
Deschutes River	Deschutes River	DE-17-DE-18	1.94	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Two unnamed tributaries. Associated wetlands. 100-year floodplain. Potential channel migration zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Baldhill very stony sandy loam, 0 to 3% slopes (005), Baldhill very stony sandy loam, 3 to 15% slopes (006), Godfrey silty clay loam (041), Spanaway-Nisqually complex, 2 to 10% slopes (114), Spanaway stony sandy loam, 3 to 15% slopes (026), Newberg loam (072). Geologically sensitive area: No.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon, wild turkey, elk	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach, mostly on the left bank (S) of the Deschutes River), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead), elk overwintering habitat. A small stand of oak-conifer/woodland canopy forest is mapped just to the west of the eastern reach break. The entire extent of this reach is within the 100-year floodplain. The Deschutes River is heavily forested on the left bank (SW) which shows no sign of development; the right	residential, undeveloped, timber/forest land, agricultural	RRR 1/5, LTA	conservancy	Public access within the reach: roads (Military Rd SE)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (culverts are associated with the crossing of Military Rd SE over both Silver Creek and the Deschutes River, 3 culverts, 0 barriers), dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (a bridge is associated with the crossing of Military Rd SE over the Deschutes), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature in Deschutes), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/	None noted	This reach is categorized as being 'double channel jurisdiction.' The length of Silver Creek that parallels this Deschutes River reach is included within this reach break description.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial drift, pre-Fraser, Continental glacial outwash, gravel, Fraser-age.		bank (NE) shoreline is mostly cleared for agricultural use. The extent of Silver Creek jurisdiction within this reach exhibits very little natural vegetation, cleared on both sides for agricultural and residential use.						temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.		
Deschutes River	Deschutes River	DE-18-DE-19	1.32	Gradient: Low. Confinement: Unconfined, Moderately Confined, Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Two unnamed tributaries. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Newberg loam (072), Chehalis silt loam (026), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007), Spanaway stony sandy loam, 0 to 3% slopes (025), Spanaway stony sandy loam, 3 to 15% slopes (026), Godfrey silty clay loam (041), Spanaway gravelly sandy loam, 0 to 3% slopes (110). Geologically sensitive area: No. Bedrock age: Holocene, Pleistocene, Eocene, Miocene-Oligocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age, Andesite flows, Gabbro.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon, elk	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach on both shorelines), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead), elk overwintering habitat. The entire reach is within the 100-year floodplain. Both shorelines exhibit areas of fragmented forest due to agricultural use, as well as areas of intact forest.	agricultural, residential, undeveloped	RRR 1/5	conservancy	Public access within the reach: roads (State Hwy 507), trails (Yelm to Tenino County trail, bikeway)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (a bridge is associated with the crossing of Hwy 507 mid-reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature, fecal coliform), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list).	None noted	SMP jurisdiction continues for about 5000 ft along an unnamed tributary which joins the river mid-reach. Jurisdiction ends near the crossing of power lines and at the intersection with the Chehalis Western County trail.
Deschutes River	Deschutes River	DE-19-DE-20	1.54	Gradient: Low. Confinement: Confined, Moderately Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: One unnamed tributary. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Baldhill very stony sandy loam, 3 to 15% slopes (006), Everson clay loam (036), Pheeney-Rock outcrop complex, 40 to 65% slopes (082), Baumgard-Rock outcrop complex, 40 to 65% slopes (013), Baumgard-Pheeney complex, 10 to 40% slopes (011), Baumgard-Pheeney complex, 40 to 65% slopes (012), Newberg fine sandy loam (071). Geologically sensitive area: No.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach on both shorelines), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead), elk overwintering habitat. The entire reach is within the 100-year floodplain. Shorelines within this reach have the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	timber/forest land	LTF	conservancy	None	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (Olympic pipeline, power lines); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				Bedrock age: Pleistocene and Eocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Andesite flows, Continental glacial drift, pre-Fraser.										
Deschutes River	Deschutes River	DE-1-DE-2	0.20	Gradient: Low. Confinement: Unconfined. Habitat: Large tributary. Steep slopes (>=40% slope): Yes, very little. Potential landslide area (>=15% slope): Yes, very little. Surface hydrology: Unnamed tributary. Associated wetlands. Wide 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Pilchuck loamy sand (084), Sultan silt loam (115), Puget silt loam (088), Indianola loamy sand, 15 to 30% slopes (048), Puyallup silt loam (089). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The reach falls entirely within the 100-year floodplain. The western portion of both reaches exhibits modification of shoreline vegetation (for residential use on the right bank, and agricultural clearing on the left bank); the eastern portions of both shorelines are forested.	residential, undeveloped	OS	conservancy	Public access within the reach: roads (Henderson Blvd SE), trails (bikeway)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: yes (two culverts exist within jurisdiction under Henderson Blvd SE and 58th Ave SE, but are not within the Deschutes River proper; 2 culverts, 0 barriers), dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (a bridge is associated with the crossing of the Deschutes River by Henderson Blvd SE at the west reach break), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Deschutes River	Deschutes River	DE-20-DE-21	0.44	Gradient: Low. Confinement: Moderately confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Two unnamed tributaries. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Chehalis silt loam (026), Baumgard-Pheeney complex, 10 to 40% slopes (011), Baumgard-Pheeney complex, 40 to 65% slopes (012), Newberg fine sandy loam (071). Geologically sensitive area: No. Bedrock age: Eocene. Lithology: Andesite flows.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach on both shorelines), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. Both shorelines within this reach are heavily forested, although the left bank (SW) has the potential to be clear-cut, based on usage as Long Term Forestry land.	undeveloped, timber/forest land, residential	PP, LTF	conservancy	Public access within the reach: parks (Ruth Prairie Park)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	Continue use as a park/preserve.	The right bank (NE) of this reach includes Ruth Prairie Park (undeveloped) in which the Chehalis Western County Trail is proposed to parallel the river. The left bank (SW) is categorized as long term forestry land.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-21-DE-22	0.68	Gradient: Low. Confinement: Moderately confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Two unnamed tributaries. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Newberg fine sandy loam (071), Riverwash (095), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (006), Chehalis silt loam (026), Baumgard-Pheeney complex, 40 to 65% slopes (012), Baumgard loam, 40 to 65% slopes (010). Geologically sensitive area: No. Bedrock age: Eocene and Pleistocene. Lithology: Andesite flows, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. Both shorelines within this reach have the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	agricultural, timber/forest land	LTF	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The Chehalis Western County Trail is proposed to parallel this reach on the right bank (NE) of the river. Both shorelines are categorized as long term forestry land.
Deschutes River	Deschutes River	DE-22-DE-23	0.63	Gradient: Low. Confinement: Moderately Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Two unnamed tributaries. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Baumgard-Pheeney complex, 40 to 65% slopes (012), Chehalis silt loam (026), Everett very gravelly sandy loam, 0 to 3% slopes (032), Baldhill very stony sandy loam, 15 to 30% slopes (007). Geologically sensitive area: No. Bedrock age: Eocene and Pleistocene. Lithology: Andesite flows, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. The left bank (S) shoreline has the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land. The right bank (N) is heavily forested. Both shorelines exhibit moderate clearing around power lines.	undeveloped, timber/forest land	LTF, PPTP	conservancy	Public access within the reach: parks (Rainier View Park)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (power lines, gas lines, fiber optic) Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The right bank (N) of this reach includes Rainier View Park (undeveloped) in which the Chehalis Western County Trail is proposed to parallel the river. The left bank (S) is categorized as long term forestry land.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-23-DE-24	0.92	Gradient: Low. Confinement: Downstream half of reach is Moderately Confined. Upstream half is Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Two unnamed tributaries. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Chehalis silt loam (026), Baldhill very stony sandy loam, 15 to 30% slopes (007), Everett very gravelly sandy loam, 0 to 3% slopes (032), Baldhill very stony sandy loam, 0 to 3% slopes (005). Geologically sensitive area: No. Bedrock age: Pleistocene and Eocene. Lithology: Andesite flows, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon, riffle sculpin, speckled dace, torrent sculpin, redside shiner	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. Conifer-deciduous tree stands are present in the western half of the reach (both shorelines). The majority of the reach is zoned for residential use, resulting in some fragmentation of forested shoreline vegetation, although some areas of shoreline remain heavily forested.	undeveloped, timber/forest land, residential, agricultural	LTF, RRR 1/5	conservancy	Public access within the reach: roads (Vail Loop Rd SE), trails (Chehalis Western trail/Vail Loop trailheads)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (bridge associated with Vail Loop Rd SE crossing the Deschutes mid-reach), railroads: no, marinas: no, utilities: no, Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The Chehalis Western County Trail/Vail Loop Trailhead is proposed to begin within this reach. Water quality gauges are found near to the bridge (stick gauge, USGS gauge). The east reach break is defined by the confluence of Reichel Lake Creek and the Deschutes River.
Deschutes River	Deschutes River	DE-24-DE-25	2.94	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Four unnamed tributaries, one which drains Reichel Lake. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Baldhill very stony sandy loam, 0 to 3% slopes (005), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007), Godfrey silty clay loam (041), Indianola loamy sand, 3 to 15% slopes (047), Everett very gravelly sandy loam, 15 to 30% slopes (034). Geologically sensitive area: No. Bedrock age: Pleistocene and Eocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Andesite flows.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. The right bank exhibits largely unfragmented forest for the majority of the reach, except in areas utilized for forestry, which maybe cleared. The left bank (S) is more heavily utilized for residential use, resulting in somewhat fragmented, though mostly intact shoreline vegetation.	undeveloped, timber/forest land, residential, commercial, utilities	RLAMIRD 1/2, RRR 1/5	conservancy	Public access within the reach: roads (Vail Cut-Off Rd SE)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: yes (1 culvert located within jurisdiction but not within the Deschutes, under Vail Loop Rd on the left bank; 1 culvert, 0 barriers) dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (bridge is associated with crossing of the Deschutes River by Vail Cut-Off Rd SE mid-reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature, dissolved oxygen, fecal coliform, fine sediment), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	A water quality gauge (stick) is located near the bridge crossing at Vail Cut-Off Rd.

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Deschutes River	Deschutes River	DE-25-DE-26	1.90	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Four unnamed tributaries, one of which drains Lawrence Lake. Associated wetlands. Very wide 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Baldhill very stony sandy loam, 0 to 3% slopes (005), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007),McKenna gravelly silt loam, 0 to 5% slopes, Godfrey silty clay loam (041), Mukilteo muck, drained (070), Tisch silt loam (120), Newberg fine sandy loam (071), Spanaway gravelly sandy loam, 0 to 3% slopes (110). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Alluvium.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. Conifer-deciduous and oak-conifer/woodland canopy forest is present in the eastern portion of the reach on the left bank (S). Vegetation along the right bank (N) is thin or absent in places, where clearing extends to the shoreline. The left bank (S) shoreline exhibits fragmented forest in some areas, but is more continuous than that of the right bank.	undeveloped, timber/forest land, residential, agricultural	LTA, RRR 1/5	conservancy	Public access within the reach: roads (Vail Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (bridge is associated with crossing of the Deschutes River by Vail Rd SE near the west reach break), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature, dissolved oxygen, fecal coliform, fine sediment), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Deschutes River	Deschutes River	DE-26-DE-27	1.54	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Hull Creek and an unnamed tributary. Associated wetlands. Very wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Newberg fine sandy loam (071), Chehalis silt loam (026), Godfrey silty clay loam (041), Spanaway stony sandy loam, 0 to 3% slopes (112), Spanaway stony sandy loam, 3 to 15% slopes (113), Baldhill very stony sandy loam, 0 to 3% slopes (005), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007), Everett very gravelly sandy loam, 0 to 3% slopes (032), Semiahmoo muck (104). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Alluvium.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. The right bank (N) is utilized for agriculture, and exhibits large areas of cleared vegetation along the shoreline. The eastern portion of the left bank (S) has the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	agricultural, timber/forest land	LTA, LTF	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-27-DE-28	1.25	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Five unnamed tributaries. Associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Newberg fine sandy loam (071), Chehalis silt loam (026), Godfrey silty clay loam (041), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007), McKenna gravelly silt loam, 0 to 5% slopes (065). Geologically sensitive area: No. Bedrock age: Pleistocene, Holocene, Miocene, middle to upper. Lithology: Continental glacial outwash, gravel, Fraser-age, Alluvium, Continental sedimentary deposits or rocks.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead), waterfowl overwintering habitat. The entire reach is within the 100-year floodplain. Both shorelines exhibit fragmented vegetative cover with some areas of clearing and some areas of forest. Large portions of the left bank (S) are cleared to the shoreline for agricultural use.	residential, undeveloped, agricultural	RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: yes (see Notes column), armoring: no, Facilities: roads: yes (1 private), bridges: yes (associated with crossing of Deschutes by private road mid-reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list).	None noted	Cougar Mountain Farm Dam is within shoreline jurisdiction but not along the mainstem Deschutes River
Deschutes River	Deschutes River	DE-28-DE-29	0.18	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetlands. Wide 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Newberg fine sandy loam (071), Chehalis silt loam (026), Godfrey silty clay loam (041). Geologically sensitive area: No. Bedrock age: Holocene. Lithology: Alluvium.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead), waterfowl overwintering habitat. The entire reach is within the 100-year floodplain. Both shorelines exhibit modified vegetation along the river, with some areas of clearing and fragmented tree stands.	residential, undeveloped, timber/forest land	RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-29-DE-30	0.64	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Three unnamed tributaries. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Godfrey silty clay loam (041), Newberg fine sandy loam (071), Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age, Continental glacial till, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. Most of the reach is comprised of small residential parcels, and forested riparian vegetation is somewhat fragmented on both shorelines.	residential, undeveloped	RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1 private), bridges: yes (associated with crossing of Deschutes by private road mid-reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list).	None noted	A private road crosses the river within this reach via bridge (this bridge is not mapped).
Deschutes River	Deschutes River	DE-2-DE-3	0.92	Gradient: Low. Confinement: Unconfined. Habitat: Large tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes, very little. Surface hydrology: Two unnamed tributaries. Associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Puyallup silt loam (089), Pilchuck loamy sand (084), Sultan silt loam (115), Puget silt loam (088). Geologically sensitive area: No. Bedrock age: Holocene. Lithology: Alluvium.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The reach falls entirely within the 100-year floodplain. Both shorelines are heavily forested with unmodified vegetation.	undeveloped	OS, R 4-8	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (power lines); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Deschutes River	Deschutes River	DE-30-DE-31	5.04	Gradient: Low. Confinement: Unconfined, Moderately Confined, Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Fall Creek and nine unnamed tributaries. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Baldhill very stony sandy loam, 0 to 3% slopes (005), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007), Baldhill very stony sandy loam, 30 to 60% slopes (008), Newberg loam (072),	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon, osprey	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. Both shorelines have the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	timber/forest land, undeveloped	LTF	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1 private), bridges: yes (associated with crossing of Deschutes by private road in the eastern half of the reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	A private road crosses the river within this reach via bridge (this bridge is not mapped).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				Indianola loamy sand, 3 to 15% slopes (047), Kapowsin stony loam, 3 to 15% slopes, Godfrey silty clay loam (041), Pheeney-Rock outcrop complex, 40 to 65% slopes (082), Baumgard-Rock outcrop complex, 40 to 65% slopes (013), Newberg fine sandy loam (071), Riverwash (095), Everett very gravelly sandy loam, 3 to 15% slopes (033), Pheeney-Baumgard complex, 30 to 65% slopes (081), Mashel loam, 30 to 65% slopes (063). Geologically sensitive area: No. Bedrock age: Pleistocene, Holocene, and Eocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age, Continental glacial till, Fraser-age, Andesite Flows.									
Deschutes River	Deschutes River	DE-31-DE-32	0.09	Gradient: Low. Confinement: Confined. Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Mitchell Creek and unnamed tributary. Associated wetland. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Riverwash (095), Baldhill very stony sandy loam, 30 to 60% slopes (008). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. Both shorelines within this reach have the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	timber/forest land	LTF	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The adjacent shoreline property within this reach is utilized as LTF, and may be cleared or forested as a result.
Deschutes River	Deschutes River	DE-32-DE-33	1.38	Gradient: Low. Confinement: Primarily Unconfined. Small area at upstream end is Moderately Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Johnson Creek, Thurston Creek, and six unnamed tributaries. Large associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Riverwash (095), Baldhill very stony sandy loam, 0 to 3% slopes (005), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007), Baldhill very stony sandy loam, 30 to 60% slopes (008), Indianola loamy sand, 3 to 15% slopes	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach, with a large elongated wetland stretching northward on the right bank (N) mid reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain, which also extends to encompass the contour of the right bank wetland. The south shoreline exhibits residential use, with fragmented forest vegetation. The north shoreline is mostly forested, with some larger areas of clearing to the river.	residential, undeveloped, agricultural	RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1 private), bridges: yes (associated with crossing of Deschutes by private road mid-reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage,	None noted	A private road crosses the river within this reach via bridge (this bridge is not mapped).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				(047), Chehalis silt loam (026), Godfrey silty clay loam (041), Newberg loam (072), Kapowsin silt loam, 0 to 3% slopes (050), Everson clay loam (036). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.								recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.		
Deschutes River	Deschutes River	DE-33-DE-34	1.32	Gradient: Low. Confinement: Moderately Confined. Unconfined. Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Two unnamed tributaries. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Newberg loam (072), Kapowsin silt loam, 0 to 3% slopes (050), Skipopa silt loam, 3 to 15% slopes (108), Riverwash (095), Baldhill very stony sandy loam, 3 to 15% slopes (006), Chehalis silt loam (026). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Alpine glacial outwash, pre-Fraser.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire reach is within the 100-year floodplain. Both shorelines within this reach have the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	timber/forest land	LTF	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Deschutes River	Deschutes River	DE-34-DE-35	0.55	Gradient: Moderate; Low. Confinement: Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Two unnamed tributaries. Small associated wetlands. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Chehalis silt loam (026), Skipopa silt loam, 3 to 15% slopes (108), Pheeney gravelly loam, 30 to 65% slopes (080), Yelm fine sandy loam, 3 to 15% slopes (127), Rainier clay loam, 5 to 30% slopes (090). Geologically sensitive area: No. Bedrock age: Pleistocene, Eocene, and Holocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Alpine glacial outwash, pre-Fraser, Andesite flows, Alluvium.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). Both shorelines are heavily forested.	undeveloped, timber/forest land, residential	PP	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	Continue use as a park	The reach is located entirely within Deschutes Falls Park. Two fish passage barriers (IC, IF; waterfalls) are found within this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-35-DE-36	1.43	Gradient: Moderate; Low. Confinement: Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Four unnamed tributaries. Associated wetlands in the river channel. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Chehalis silt loam (026), Pheeney gravelly loam, 30 to 65% slopes (080), Galvin silt loam, 0 to 5% slopes (037), Rainier clay loam, 5 to 30% slopes (090), Mashel loam, 5 to 30% slopes (062). Geologically sensitive area: No. Bedrock age: Eocene, Holocene, Oligocene-Eocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Alpine glacial outwash, pre-Fraser, Andesite flows, Alluvium.	Reach may contain the following species: resident cutthroat	Reach may contain the following habitats: wetlands and associated buffers (river only). The eastern half of this reach is within the 100-year floodplain. Both shorelines within this reach have the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	undeveloped, timber/forest land	LTF	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Deschutes River	Deschutes River	DE-36-DE-37	2.69	Gradient: Low. Confinement: Primarily Moderately Confined. Small middle section is Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Little Deschutes River and nine unnamed tributaries. Small associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Pheeney gravelly loam, 30 to 65% slopes (080), Galvin silt loam, 0 to 5% slopes (037), Rainier clay loam, 5 to 30% slopes (090), Mashel loam, 5 to 30% slopes (062). Geologically sensitive area: No. Bedrock age: Eocene and Holocene. Lithology: Andesite flows, Alluvium.	Reach may contain the following species: resident cutthroat	Reach may contain the following habitats: wetlands and associated buffers (within the southern half of the reach). The entire reach is within the 100-year floodplain. Both shorelines within this reach have the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	timber/forest land	LTF	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The southern reach break is defined by the boundary of Thurston County

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-3-DE-4	0.44	Gradient: Low. Confinement: Unconfined. Habitat: Large tributary. Steep slopes (>=40% slope): Yes, small areas. Potential landslide area (>=15% slope): Yes, small areas. Surface hydrology: Associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Puyallup silt loam (089), Sultan silt loam (115), Puget silt loam (088), Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The reach falls entirely within the 100-year floodplain. Both shorelines are heavily forested with unmodified vegetation.	undeveloped	RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	Southeast reach break denotes parcel boundary of a mine (mine is directly upstream of this reach). The left bank is within Tumwater's UGA. The right bank is within unincorporated Thurston County.
Deschutes River	Deschutes River	DE-4-DE-5	0.36	Gradient: Low. Confinement: Unconfined. Habitat: Large tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetlands. Extremely wide 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Sultan silt loam (115), Puget silt loam (088), Puyallup silt loam (089), Everett very gravelly sandy loam, 15 to 30% slopes (034), Everett very gravelly sandy loam, 0 to 3% slopes (032), Pilchuck loamy sand (084), Indianola loamy sand, 0 to 3% slopes (046), Gravel pits (085), Indianola loamy sand, 15 to 30% slopes (048). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The reach falls entirely within the 100-year floodplain. The left bank (W) is heavily forested; the right bank exhibits stands of trees between the mine and the river boundary on the right bank for the majority of the reach.	Mining	OS, RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Mining related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Boe Construction, LLC owns the mine that falls within this reach. The left bank is within Tumwater's UGA. The right bank is within unincorporated Thurston County.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-5-DE-6	0.68	Gradient: Low. Confinement: Unconfined. Habitat: Large tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Indianola loamy sand, 15 to 30% slopes (048), Tisch silt loam (120), Sultan silt loam (115), Pilchuck loamy sand (084), Puyallup silt loam (089), Everett very gravelly sandy loam, 15 to 30% slopes (034), Everett very gravelly sandy loam, 0 to 3% slopes (032), Indianola loamy sand, 3 to 15% slopes (047), Indianola loamy sand, 0 to 3% slopes (046). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). Both shorelines are forested within this reach and there is little evidence of land use.	residential, undeveloped, recreational	OS, RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (dissolved oxygen, fecal coliform, temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	The left bank is within Tumwater's UGA. The right bank is within unincorporated Thurston County.
Deschutes River	Deschutes River	DE-6-DE-7	0.14	Gradient: Low. Confinement: Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes, small areas. Surface hydrology: Ayers Creek tributary. Associated wetlands. Very wide 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Sultan silt loam (115), Pilchuck loamy sand (084), Indianola loamy sand, 3 to 15% slopes (047). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon, osprey	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). Both shorelines are forested within this reach, with thick stands of trees bordering the river on the right bank (E) between shoreline and residential development.	undeveloped	OS, residential LAMIRD 1/1	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (dissolved oxygen, fecal coliform, temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	The left bank is within Tumwater's UGA. The right bank is within unincorporated Thurston County.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-7-DE-8	1.37	Gradient: Low. Confinement: Moderately confined for most of reach. Unconfined at southern end of reach. Habitat: Large tributary. Steep slopes (>=40% slope): Yes, small area. Potential landslide area (>=15% slope): Yes, small areas. Surface hydrology: Elwanger Creek tributary. Extensive associated wetlands and 100-year floodplain on both the mainstem Deschutes River and Elwanger Creek. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Sultan silt loam (115), Pilchuck loamy sand (084), Puget silt loam (088), Indianola loamy sand, 15 to 30% slopes (048), Indianola loamy sand, 3 to 15% slopes (047), Indianola loamy sand, 0 to 3% slopes (046), Nisqually loamy fine sand, 0 to 3% slopes (073), Yelm fine sandy loam, 3 to 15% slopes (127), Yelm fine sandy loam, 15 to 30% slopes (128), Shalcar variant muck (106), Tisch silt loam (120). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon, osprey	Reach may contain the following habitats: wetlands and associated buffers (river only), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire extent of this reach is within the 100-year floodplain. Residential use on the left bank (W) has resulted in clearing of vegetation in a small area of the southern portion of the reach . The right bank (E) and the northern portion of the left bank are heavily forested.	undeveloped, timber/forest land, residential	OS, RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (dissolved oxygen, fecal coliform, temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Deschutes River	Deschutes River	DE-8-DE-9	0.35	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes, small areas. Potential landslide area (>=15% slope): Yes, small areas. Surface hydrology: Associated wetlands. Very wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Puget silt loam (088), Indianola loamy sand, 15 to 30% slopes (048), Nisqually loamy fine sand, 0 to 3% slopes (073), Spana gravelly loam (109), Gravel pits (085), Sultan silt loam (115), Everett very gravelly sandy loam, 30 to 50% slopes (035), Giles silt loam, 15 to 30% slopes (040). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire extent of this reach is within the 100-year floodplain. The right bank (E) is heavily forested. The left bank exhibits clearing for the mine, in some places clearing extends to the river shoreline.	commercial	LI, OS, RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list). Mining related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Property on both sides of the river is utilized as a mine (Olympic Fuel and Asphalt) within this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Deschutes River	DE-9-DE-10	1.36	Gradient: Low. Confinement: Northern half of reach is Unconfined. Southern half of reach is Moderately Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Ridge on left bank of river. Potential landslide area (>=15% slope): Yes, thin ridge on both sides of river. Surface hydrology: Associated wetlands. Wide 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Sultan silt loam (115), Indianola loamy sand, 15 to 30% slopes (048), Gravel pits (085), Everett very gravelly sandy loam, 0 to 3% slopes (032), Puyallup silt loam (089), Yelm fine sandy loam, 0 to 3% slopes (126), Yelm fine sandy loam, 15 to 30% slopes (128), Everett very gravelly sandy loam, 30 to 50% slopes (035). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning and/or rearing habitat (coho, chinook, winter steelhead). The entire extent of this reach is within the 100-year floodplain. In the northern half of this reach, both river banks exhibit evidence of clearing and modification of vegetation due to residential and agricultural land use. The southern half of the reach contains fairly continuously forested shorelines.	open space, residential, undeveloped, timber/forest land, agricultural	OS, RRR 1/5, SFRLDR 4-7	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (Olympic pipeline); Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list).	None noted	One parcel in private conservation on right bank in this reach.
Deschutes River	Little Deschutes River	DE-36-0-DE-36-1	1.34	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Little Deschutes River flows into the Deschutes River. Two unnamed tributaries. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Mashel loam, 5 to 30% slopes (062), Mashel loam, 30 to 65% slopes (063), Baldhill very stony sandy loam, 0 to 3% slopes (005), Pheeney gravelly loam, 5 to 30% slopes (079), Pheeney gravelly loam, 30 to 65% slopes (080), Rainier clay loam, 5 to 30% slopes (090), Rainier clay loam, 30 to 65% slopes (091), Baumgard loam, 10 to 40% slopes (009), Pheeney-Rock outcrop complex, 40 to 65% slopes (082), McKenna gravelly silt loam, 0 to 5% slopes (065). Geologically sensitive area: No. Bedrock age: Oligocene-Eocene, Holocene, and Eocene. Lithology: Alluvium, Andesite flows, Basaltic andesite flows.	Reach may contain the following species: resident cutthroat	Reach may contain the following habitats: The western third of this reach is within the 100-year floodplain. Both shorelines within this reach have the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	timber/forest land	LTF	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The eastern reach break marks the point at which 20 cfs flow ends, and is the end of Thurston County Jurisdiction The entire reach is utilized for forestry.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Mclane Creek	Mclane Creek	MCL-0-MCL-1	0.19	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetlands. Estuarine wetland. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Maytown silt loam (064), Everett very gravelly sandy loam, 0 to 3% slopes (032), Bellingham silty clay loam (014). Geologically sensitive area: Yes. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial till, Fraser-age.	Reach may contain the following species: sea-run cutthroat, chum salmon, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (present on the left bank (W) for the reach extent), anadromous fish spawning habitat (chum). The reach falls entirely within the 100-year floodplain. The northern portion of this reach is characterized by coastal salt marsh and brackish marsh features northward until the creek enters Mud Bay. This reach appears unmodified adjacent to stream, with emergent wetland and/or scrub-shrub vegetation on both shorelines, but clearing in the outer jurisdiction.	undeveloped, residential	RRR 1/5	conservancy	Public access within the reach: roads (Delphi Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: (1), bridges: yes (a bridge is associated with the crossing of Delphi Rd SW over Mclane Creek at the south reach break), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	TCGDRS, 2009 ranked one wetland site (Totten Eld Wetland 200) as moderate restoration benefit, two wetland sites (Totten Eld Wetland 201, and 98) ranked as low restoration benefit, one riparian site (Totten Eld Riparian 172) ranked as low restoration benefit, and one floodplain site (Totten Eld Floodplain 12) ranked as low restoration benefit.	A water quality sample site and a water quality stream gauge are found within this reach.
Mclane Creek	Mclane Creek	MCL-1-MCL-2	0.40	Gradient: Low. Confinement: Primarily moderately confined. Small unconfined northern section. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Swift Creek, Perkins Creek, and two unnamed creeks flow into McLane Creek. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Maytown silt loam (064), Yelm fine sandy loam, 0 to 3% slopes (126), Everett very gravelly sandy loam, 0 to 3% slopes (032), Giles silt loam, 15 to 30% slopes (040), Giles silt loam, 3 to 15% slopes (039). Geologically sensitive area: Yes. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial till, Fraser-age.	Reach may contain the following species: sea-run cutthroat, resident cutthroat, chum salmon, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (simple wetlands are found on the left bank in the northern half of the reach, and on the right bank in the southern half), anadromous fish spawning habitat (chum). The reach falls entirely within the 100-year floodplain. Shorelines of both banks are forested, with some fragmentation due to residential use of parcels within this reach.	undeveloped, residential	RRR 1/5	conservancy	Public access within the reach: roads (Delphi Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (associated with Delphi Rd SW crossing Swift Creek), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	TCGDRS, 2009 ranked one wetland site (Totten Eld Wetland 84 and 147) as moderate/high restoration benefit, one wetland site (Totten Eld Wetland 148) ranked as low restoration benefit, four riparian sites (Totten Eld Riparian 226, 227, 233, 234,) ranked as moderate/high restoration benefit, one riparian site (Totten Eld Riparian 229) ranked as high restoration benefit, two riparian sites (Totten Eld Riparian 228 and 230) ranked as low restoration benefit, and one floodplain site (Totten Eld Floodplain 12) ranked as low restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Mclane Creek	Mclane Creek	MCL-2-MCL-3	0.69	Gradient: Low. Confinement: Moderately confined in northern section. Unconfined in southern section. Habitat: Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes, very little. Surface hydrology: Cedar Flats Creek and an unnamed tributary flow into McLane Creek. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Maytown silt loam (064), Everett very gravelly sandy loam, 3 to 15% slopes (033), Bellingham silty clay loam (014), Mukilteo muck (069), Giles silt loam, 3 to 15% slopes (039), Yelm fine sandy loam, 0 to 3% slopes (126). Geologically sensitive area: Yes. Bedrock age: Holocene and Pliestocene. Lithology: Alluvium, Continental glacial outwash, Fraser-age.	Reach may contain the following species: resident cutthroat, sea-run cutthroat, chum salmon, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning habitat (chum). The reach falls entirely within the 100-year floodplain. On both stream banks, the majority of shoreline is cleared to the creek boundary for residential or agricultural use.	undeveloped, residential, agricultural	RRR 1/5	conservancy	Public access within the reach: roads (Delphi Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (5 culverts, no barriers. Culverts are associated with crossing of Delphi Rid SW, 32nd Ct SW, and Delphi Rd over either Mclane Creek or one of two unnamed tributaries that fall within the shoreline jurisdiction in this reach), dams: no, armoring: no, Facilities: roads: (1), bridges: yes (2 bridges are associated with the crossings of Delphi Rd SW over an unnamed tributary and over Mclane Creek within the middle of this reach), railroads: no, marinas: no, utilities: yes (power lines); Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	TCGDRS, 2009, ranked two riparian sites (Totten Eld Riparian 234, 236) moderate/high restoration benefit, two riparian sites (Totten Eld Riparian 159, 235) moderate restoration benefit, one riparian site (Totten Eld Riparian 238) low restoration benefit, one wetland site (Totten Eld Wetland 79) moderate/high restoration benefit, one wetland site (Totten Eld Wetland 84) moderate restoration benefit, two wetland sites (Totten Eld Wetland 148, 149) low restoration benefit, and one floodplain site (Totten Eld Floodplain 12) low restoration benefit.	Flow equal to 20 cfs begins at south reach break.
Mclane Creek	Mclane Creek	MCL-3-MCL-4	n/a	Gradient: Low. Confinement: Unconfined. Habitat: Small tributary. Steep slopes (>=40% slope): Yes, very little. Potential landslide area (>=15% slope): Yes. Surface hydrology: Beatty Creek and three unnamed creeks join McLane Creek. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Maytown silt loam (064), Bellingham silty clay loam (014), Mukilteo muck (069), Everett very gravelly sandy loam, 3 to 15% slopes (033), Skipopa silt loam, 3 to 15% slopes (108), Puget silt loam (088), Semiahmoo muck (104), Giles silt loam, 3 to 15% slopes (039), Alderwood gravelly sandy laom, 3 to 15% slopes (002), Raught silt loam, 30 to 65% slopes (094). Geologically sensitive area: Yes. Bedrock age: Holocene, Pleistocene, and Eocene, lower to middle. Lithology: Alluvium, Continental glacial outwash, Fraser-age, Continental glacial drift, Fraser-age, Continental glacial outwash, gravel, Fraser-age, Basalt flows and flow breccias, Crescent Formation.	Reach may contain the following species: sea-run cutthroat, resident cutthroat, coho salmon, chum salmon, wood duck	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach), anadromous fish spawning habitat (chum). The reach falls entirely within the 100-year floodplain. The majority of both reach shorelines exhibit wide, unfragmented forest, although a few areas show evidence of clearing for residential use.	undeveloped, residential, agricultural	RRR 1/5, LTF, RLAMIRD 1/1	not designated	Public access within the reach: Parks/Gov't Land (Capitol Forest and Mclane Nature Trail)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (2 culverts, no barriers. Culverts are associated with 40th Ave S and 40th Ave SW over an unnamed tributary that falls within the shoreline jurisdiction in this reach), dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	TCGDRS, 2009, ranked two riparian sites (Totten Eld Riparian 236 and 346) moderate/high restoration benefit, one riparian site (Totten Eld Riparian 237) moderate restoration benefit, one riparian site (Totten Eld Riparian 266) low restoration benefit, one wetland site (Totten Eld Wetland 79) moderate/high restoration benefit, one wetland site (Totten Eld Wetland 84) moderate restoration benefit, one wetland site (Totten Eld Wetland 77) low restoration benefit, and two floodplain sites (Totten Eld Floodplain 12 and 11) low restoration benefit.	South reach break marks headwaters of Mclane Creek and denotes the extent of jurisdiction for the wetlands associated with Mclane Creek.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Deschutes River	Mitchell Creek	DE-31-0-DE-31-1	1.46	Gradient: Low. Confinement: Primarily confined. Unconfined at mouth. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Mitchell Creek flows into the Deschutes River. Three unnamed tributaries. Associated wetlands. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Riverwash (095), Mashel loam, 5 to 30% slopes (062), Mashel loam, 30 to 65% slopes (063), Rock outcrop-Pheeney complex, 40 to 90% slopes (096), Pheeney-Baumgard complex, 30 to 65% slopes (081), Baumgard loam, 40 to 65% slopes (010). Geologically sensitive area: No. Bedrock age: Pleistocene and Eocene. Lithology: Andesite flows, Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (northern half of the reach), anadromous fish spawning and/or rearing habitat (coho) . Both shorelines within this reach have the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	timber/forest land	LTF	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (unpaved logging road), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The south reach break denotes the point where flow of 20 cfs begins and where Thurston County jurisdiction ends. The entire reach is utilized for forestry.
Deschutes River	Spurgeon Creek	DE-11-0-DE-11-1	0.27	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Spurgeon Creek flows into the Deschutes River. Associated wetlands. Wide 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Sultan silt loam (115), Norma silt loam (076), Yelm fine sandy loam, 0 to 3% slopes (126), Shalcar variant muck (106), Indianola loamy sand, 0 to 3% slopes (046), Everett very gravelly sandy loam, 30 to 50% slopes (035). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: chinook and coho salmon, wood duck	Reach may contain the following habitats: wetlands and associated buffers (eastern half of reach, both shorelines), anadromous fish spawning and/or rearing (coho), wood duck breeding habitat. The entire reach falls within the 100-year floodplain. Both shorelines have fragmented forest buffer due to residential use/clearing.	residential	RRR 1/5	not designated	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (fecal coliform), contaminated sediments: no, shellfish harvest ratings: n/a	Water quality within this reach is impacted (Ecology 303d list).	None noted	There is a water quality sample site mid-reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Spurgeon Creek	Spurgeon Creek	DE-11-1-DE-11-2	1.88	Gradient: Low. Confinement: Unconfined and Moderately Confined. Habitat: Small Tributary and Seasonally Flooded Wetland. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Norma silt loam (076), Everett very gravelly sandy loam, 0 to 3% slopes (032), Everett very gravelly sandy loam, 3 to 15% slopes (032), Everett very gravelly sandy loam, 30 to 50% slopes (035), Cagey loamy sand (020), Indianola loamy sand, 0 to 3% slopes (046), Yelm fine sandy loam, 0 to 3% slopes (126). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age, Continental glacial outwash, gravel, Fraser-age, Advance continental glacial outwash, Fraser-age.	Reach may contain the following species: chinook and coho salmon, wood duck	Reach may contain the following habitats: wetlands and associated buffers (scattered throughout reach on both shorelines) and large associated wetland to south, anadromous fish spawning and/or rearing habitat (coho), wood duck breeding habitat. The entire reach falls within the 100-year floodplain. The eastern half of this reach is heavily forested on both shorelines. The western half of the reach exhibits a few areas of fragmented vegetation, due to agricultural clearing and residential land use. The associated wetland to the south is primarily forested, with some small areas cleared for timber harvest and residential development.	residential, agricultural, commercial, forest/timber land, undeveloped	RRR 1/5	not designated	Public access within the reach: roads (Rich Rd SE), trails (Chehalis Western Trail, bikeway)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (1 culvert is associated with the Rich Rd SE crossing, the second with the Chehalis Western Trail crossing; 2 culverts, no barriers), dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	There is a partial fish passage barrier (PB) mapped mid-reach. It is unconfirmed by aerial photo.
Spurgeon Creek	Spurgeon Creek	DE-11-2-DE-11-3	1.25	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary and Seasonally Flooded Wetland. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: One unnamed tributary. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Norma silt loam (076), Everett very gravelly sandy loam, 0 to 3% slopes (032), Indianola loamy sand, 0 to 3% slopes (046), Giles silt loam, 0 to 3% slopes (038), Semiahmoo muck (104), Yelm fine sandy loam, 0 to 3% slopes (126), Tisch silt loam (120), Cagey loamy sand (020). Geologically sensitive area: No. Bedrock age: Pleistocene and Holocene. Lithology: Alluvium, Continental glacial outwash, sand, Fraser-age, Advance continental glacial outwash, Fraser-age.	Reach may contain the following species: coho salmon, wood duck	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), anadromous fish spawning and/or rearing habitat (coho), wood duck breeding habitat. The entire reach falls within the 100-year floodplain. Both banks of the creek in this reach exhibit unmodified vegetation. The right bank (N) has only a few areas of wetland scrub-scrub brush fragmentation due to agricultural clearing and utilities.	residential, agricultural, commercial, forest/timber land, undeveloped	RRR 1/5	not designated	Public access within the reach: roads (Latigo Street)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (2 culverts are associated with the Latigo St crossing, 2 culverts, no barriers), dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: yes (Olympic pipeline); Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	A fish passage barrier/dam is located within this reach. The fish passage barrier is unconfirmed on aerial photos.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Spurgeon Creek	Spurgeon Creek	DE-11-3-DE-11-4	2.28	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes, very small area. Potential landslide area (>=15% slope): Yes, very small area. Surface hydrology: Two unnamed tributaries. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Tisch silt loam (120), Everett very gravelly sandy loam, 0 to 3% slopes (032), Everett very gravelly sandy loam, 3 to 15% slopes (033), Norma silt loam (076), Shalcar variant muck (106), Dupont muck (029), McKenna gravelly silt loam, 0 to 5% slopes (065), Yelm fine sandy loam, 0 to 3% slopes (126), Norma silt loam (076), Cagey loamy sand (020). Geologically sensitive area: Yes. Bedrock age: Pleistocene and Holocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age, Continental glacial outwash, sand, Fraser-age, Advance continental glacial outwash, Fraser-age.	Reach may contain the following species: coho salmon, wood duck, reticulate sculpin, Olympia mud minnow	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), anadromous fish spawning and/or rearing habitat (coho), wood duck breeding habitat. The western third of this reach lies within the 100-year floodplain. The majority of this reach has little observable shoreline vegetation, the land having been cleared for agricultural use.	residential, undeveloped, agricultural	MGSA	not designated	Public access within the reach: roads (Rainier Rd SE, Spurgeon Creek Rd SE). Trails (bikeway)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (1 culvert is associated with the Rainier Rd SE crossing, and 1 culvert with the Spurgeon Creek Rd SE crossing; 2 culverts, no barriers), dams: no, armoring: no, Facilities: roads: yes (2), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	A partial fish passage barrier lies to the east of the Rainier Rd SE crossing of the creek. The fish passage barrier is unconfirmed on aerial photos. The east reach break marks the point at which Spurgeon Creek flow diminishes below 20 cfs.
Spurgeon Creek	Spurgeon Creek	DE-11-4-DE-11-5	n/a	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Three unnamed tributaries. Large associated wetlands. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Norma silt loam (076), Cagey loamy sand (020), Shalcar variant muck (106), Everett very gravelly sandy loam, 0 to 3% slopes (032), Everett very gravelly sandy loam, 15 to 30% slopes (034). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age, Continental glacial till, Fraser-age, Advance continental glacial outwash, Fraser-age.	No species of note	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), waterfowl overwintering habitat. The majority of this reach on both shorelines appears cleared for agriculture, with modified shoreline vegetation and areas of clearing.	undeveloped, residential	MGSA	not designated	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	The eastern reach break marks the end of Thurston County jurisdiction of Spurgeon Creek.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Reichel Lake	Reichel Creek	DE-24-0-DE-24-1	0.92	Gradient: Low. Confinement: Primarily unconfined. Moderately Confined near confluence with Deschutes River. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: One unnamed tributary. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Baldhill very stony sandy loam, 0 to 3% slopes (005), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007), Godfrey silty clay loam (041), Spanaway gravelly sandy loam, 0 to 3% slopes. Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), anadromous fish spawning and/or rearing habitat (coho). Conifer-deciduous forest is present near the south reach break on the left bank (W).The entire extent of this reach is within the 100-year floodplain. Most of the shoreline vegetation has been cleared or modified for agricultural use on the right bank. The left bank is characterized by cleared commercial space in the northern portion of the reach.	agricultural, forest/timber land, commercial, residential	RRR1/5, LTA	not designated	Public access within the reach: roads (Vail Loop Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (fecal coliform, dissolved oxygen, temperature) contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Reichel Lake	Reichel Creek	DE-24-1-DE-24-2	0.32	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: One unnamed tributary. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Godfrey silty clay loam (041), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007), Baumgard-Pheeney complex, 10 to 40% slopes (011). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon	Reach may contain the following habitats: wetlands and associated buffers (throughout reach), anadromous fish spawning and/or rearing habitat (coho). Conifer-deciduous forest is present throughout the reach on both shorelines. The entire extent of this reach is within the 100-year floodplain. This reach exhibits little to no shoreline vegetation.	agricultural	LTA	not designated	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (culverts are associated with a Chatwood Rd SE on the left bank, which is in County jurisdiction, but does not cross the creek itself; 2 culverts, 0 barriers), dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (fecal coliform, dissolved oxygen, temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list).	None noted	The east reach break marks the point at which the creek flow diminishes below 20 cfs.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Reichel Lake	Reichel Creek	DE-24-2-DE-24-3	n/a	Gradient: Low. Confinement: Unconfined. Habitat: Seasonally Flooded Wetland. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Nine unnamed tributaries. Large associated wetland. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Godfrey silty clay loam (041), Baldhill very stony sandy loam, 3 to 15% slopes (006), Baldhill very stony sandy loam, 15 to 30% slopes (007), Shalcar variant muck (106), Semiahmoo muck (104), Everett very gravelly sandy loam, 3 to 15% slopes (033), Rainier-Rock outcrop complex, 20 to 40% slopes (092). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Continental glacial outwash, gravel, Fraser-age, Continental glacial till, Fraser-age.	Reach may contain the following species: resident cutthroat, sea-run cutthroat, winter steelhead, coho salmon, waterfowl species	Reach may contain the following habitats: wetlands and associated buffers (throughout reach, associated with the connection of Reichel Lake Creek to Reichel Lake), anadromous fish spawning and/or rearing habitat (coho), waterfowl overwintering habitat. The entire reach is within the 100-year floodplain. Throughout the reach on both shorelines most of the natural vegetation has been cleared for agricultural use.	agricultural	LTA	not designated	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (a culvert is associated with the crossing of Gordon Rd SE (private road); 1 culvert, 0 barriers), dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (fecal coliform, dissolved oxygen, temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Reichel Lake	Reichel Creek	DE-24-3-DE-24-4	n/a	Gradient: Low. Confinement: Unconfined. Habitat: Seasonally Flooded Wetland and Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Stream drains Reichel Lake. Three unnamed tributaries. Large associated wetland. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Rainier-Rock outcrop complex, 20 to 40% slopes (092), Semiahmoo muck (104), Godfrey silty clay loam (041), Baldhill very stony sandy loam, 0 to 3% slopes (005), Baldhill very stony sandy loam, 3 to 15% slopes (006). Geologically sensitive area: No. Bedrock age: Pleistocene and Eocene. Lithology: Continental glacial outwash, gravel, Fraser-age, Andesite flows.	Reach may contain the following species: resident cutthroat, sea-run cutthroat, winter steelhead	Reach may contain the following habitats: wetlands and associated buffers (throughout reach, associated with the connection of Reichel Lake Creek to Reichel Lake), anadromous fish spawning and/or rearing habitat (coho), waterfowl overwintering habitat. Both shorelines within this reach have the potential to be either heavily forested or clear-cut, based on usage as Long Term Forestry land.	undeveloped, timber/forest land	LTF	not designated	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	The east reach break is defined by the boundary of Reichel Lake. The entire reach is utilized for forestry.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Henderson	Woodland Creek	WO-0-WO-1	0.30	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes, very small areas. Potential landslide area (>=15% slope): Yes, majority of reach. Surface hydrology: Associated wetlands. Estuarine wetlands. 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: No. Soil names: Skipopa silt loam, 3 to 15% slopes (108), Dystric Xerochrepts, 60 to 90% slopes (030), Yelm fine sandy loam, 3 to 15% slopes (127). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: chum, coho, largemouth bass, sea-run cutthroat, winter steelhead	Reach may contain the following habitats: wetlands and associated buffers (within the south portion of the reach).This reach is entirely within a 100-year floodplain and the northern half of the reach is estuarine in nature. The left bank (W) shoreline is heavily forested for the northern portion of the reach, and is partially cleared for agricultural use in the southern half. The right bank (E) shoreline exhibits some tree stands interspersed with residential buildings and cleared plots.	agricultural, residential, undeveloped	RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (a culvert is positioned beneath Johnson Point Rd SE, which parallels but does not intersect the creek on the right bank within this reach; 1 culvert, 0 barriers), dams: no, armoring: no, Facilities: roads: no, bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: no	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list).	None noted	Culvert not in mainstem of creek. North reach break notes the mouth of Woodlawn Creek, where it enters Puget Sound.
Henderson	Woodland Creek	WO-1-WO-2	0.11	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes, very small area. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetlands. Unnamed tributary. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Skipopa silt loam, 3 to 15% slopes (108), Dystric Xerochrepts, 60 to 90% slopes (030), Yelm fine sandy loam, 3 to 15% slopes (127), Hydraquents, tidal (045). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: chum, coho, largemouth bass, sea-run cutthroat, winter steelhead	Reach may contain the following habitats: wetlands and associated buffers (throughout the reach) anadromous fish spawning habitat (chum). The northern portion of this reach is characterized as estuarine habitat, with sandy, unvegetated shorelines. This reach is entirely within a 100-year floodplain. The portion of the reach southeast of the Johnson Point Rd NE crossing is a coastal salt marsh, with salt meadows and brackish marsh areas on both banks.	residential	RRR 1/5	conservancy	Public access within the reach: roads (Johnson Point Rd NE)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (1 culvert is associated with the crossing of Johnson Point Rd SE, 1 culvert, 0 barriers), dams: yes (Mackie Dam is located within this reach on the right bank (E)), armoring: no, Facilities: roads: (1), bridges: no , railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species. Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Water quality within this reach is impacted (Ecology 303d list).	None noted	None
Woodland	Woodland Creek	WO-2-WO-3	1.05	Gradient: Low. Confinement: Confined in northern section of reach. Changes to unconfined, then to moderately confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes, small areas. Potential landslide area (>=15% slope): Yes. Surface hydrology: Very large associated wetlands. Two unnamed tributaries. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Skipopa silt loam, 3 to 15% slopes (108), Dystric Xerochrepts, 60 to 90% slopes (030), Hoogdal silt loam, 15 to 30% slopes (043), Hydraquents, tidal (045), Bellingham silty clay loam (014), Yelm fine sandy loam, 3 to 15% slopes	Reach may contain the following species: chum, coho, largemouth bass, sea-run cutthroat, winter steelhead, mink, wood duck	Reach may contain the following habitats: wetlands and associated buffers (entire reach is comprised of large, complex wetlands on both shorelines) anadromous fish spawning habitat (chum), wood duck breeding habitat. The 100-year floodplain extends for the length of the reach. The shorelines are characterized by unmodified wetland emergent and shrub-scrub vegetation on both banks of the Creek.	undeveloped	PP	conservancy	Public access within the reach: roads (Hawks Prairie Rd NE), parks (Woodland Creek Wetlands Park)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (1 culvert is associated with the crossing of Hawks Prairie Rd NE to the east of the Creek but within jurisdiction; 1 culvert, 0 barriers), dams: no, armoring: no, Facilities: roads: (1), bridges: yes (there is a bridge associated with the crossing of Hawks Prairie Rd NE), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (temperature), contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list).	Continue to use as a park. TCGDRS, 2007 ranked Henderson Floodplain site 22 as moderate environmental benefit for restoration. Henderson Wetland sites 289 and 223 were ranked as low environmental benefit for restoration. restoration benefit.	Undeveloped land in Thurston County park that is primarily forested/scrub-shrub/emergent. Whole parcel is a wetland.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				(127). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial outwash, sand, Fraser-age.										
Woodland	Woodland Creek	WO-3-WO-4	0.61	Gradient: Low. Confinement: Moderately confined in northern section. Confined in southern section. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes, majority of reach. Surface hydrology: Three unnamed tributaries. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Bellingham silty clay loam (014), Hoogdal silt loam, 15 to 30% slopes (043), Skipopa silt loam, 3 to 15% slopes (108), Giles silt loam, 15 to 30% slopes (040), Yelm fine sandy loam, 3 to 15% slopes (127). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: chum, coho, largemouth bass, sea-run cutthroat, winter steelhead, mink, wood duck	Reach may contain the following habitats: anadromous fish spawning habitat (chum), wood duck breeding habitat. The 100-year floodplain extends for the length of the reach. The majority of this reach is heavily forested, with some areas of clearing for residential use on both shorelines.	undeveloped, residential	RLAMIRD 1/2, RRR 1/5	conservancy	None	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	None
Woodland	Woodland Creek	WO-4-WO-5	0.26	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes, small areas. Potential landslide area (>=15% slope): Yes, majority of reach. Surface hydrology: Two unnamed tributaries. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Giles silt loam, 15 to 30% slopes (040), Skipopa silt loam, 3 to 15% slopes (108), Yelm fine sandy loam, 3 to 15% slopes (127). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: chum, coho, largemouth bass, sea-run cutthroat, winter steelhead, mink, wood duck	Reach may contain the following habitats: anadromous fish spawning habitat (chum), wood duck breeding habitat. The 100-year floodplain extends for the length of the reach. Both shorelines are heavily forested for most of the reach, excepting an area of residential development near the crossing of Pleasant Glade Rd NE.	undeveloped, residential, timber/forest land	RRR 1/5, LDR 0-4, OSI	conservancy	Public access within the reach: roads (Pleasant Glade Rd NE), parks (undeveloped park owned by City of Lacey)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (two culverts are associated with the crossing of Pleasant Glade Rd NE mid-reach; 2 culverts, 0 barriers), dams: no, armoring: no, Facilities: roads: (1), bridges: yes (there is a bridge under Pleasant Glade Rd NE where it crosses the creek), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	TCGDRS, 2007 ranked Henderson Riparian sites 26, 122, 121, area ranked ranked moderate , and site 29 ranked high for restoration benefit.	An undeveloped park owned by the City of Lacey exists south of the Pleasant Glade Rd NE crossing on the left bank (SW) of this reach.

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Woodland	Woodland Creek	WO-5-WO-6	0.43	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes, small areas. Potential landslide area (>=15% slope): Yes, much of reach. Surface hydrology: Associated wetland at southern end. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Giles silt loam, 15 to 30% slopes (040), Skipopa silt loam, 3 to 15% slopes (108), Hoogdal silt loam, 15 to 30% slopes (043). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: chum, coho, largemouth bass, sea-run cutthroat, winter steelhead, mink, wood duck	Reach may contain the following habitats: wetlands and associated buffers (at the south reach break associated with a stream confluence on the right bank (E)), anadromous fish spawning habitat (chum), wood duck breeding habitat. The 100-year floodplain extends for the length of the reach. The majority of this reach is heavily forested, with one area of clearing on the right bank (E) and associated fragmented tree stands bounding the creek.	undeveloped	LDR 0-4, OSI	conservancy	None	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no (see Notes column), contaminated sediments: no, shellfish harvest ratings: n/a	none noted	TCGDRS, 2007 ranked Henderson Wetland 284 a range from low to high for restoration benefit based on the underlying DAUs.	At the north reach break, an unnamed tributary which is listed on the 303d list for dissolved oxygen enters the reach.
Woodland	Woodland Creek	WO-6-WO-7	0.70	Gradient: Low. Confinement: Primarily confined. Unconfined section in middle. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetland. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Hoogdal silt loam, 15 to 30% slopes (043), Skipopa silt loam, 0 to 3% slopes (107), Bellingham silty clay loam (014), Skipopa silt loam, 3 to 15% slopes (108). Geologically sensitive area: Yes. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: chum, coho, largemouth bass, sea-run cutthroat, winter steelhead, mink, wood duck	Reach may contain the following habitats: wetlands and associated buffers (at the north reach break, associated with a stream confluence on the right bank (E)), anadromous fish spawning habitat (chum), wood duck breeding habitat. The 100-year floodplain extends for the length of the reach. Both shorelines appear forested for most of the reach, but with fragmented forest bordering areas of residential development.	undeveloped, residential	LDR 0-4	conservancy	Public access within the reach: roads (Draham St NE)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: yes (2 culverts are associated with the Draham St NE crossing, 2 culverts, no barriers), dams: no, armoring: no, Facilities: roads: (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	TCGDRS, 2007 ranked Henderson Wetland 284 a range from low to moderate for restoration benefit based on the underlying DAUs. Henderson Riparian sites 22, 106, 21, 20, and 19 are all ranked moderate for restoration benefit. Henderson Floodplain site 5 was ranked as moderate restoration benefit.	TCGDRS, 2007 ranked Henderson Wetland 284 a range from low to moderate for restoration benefit based on the underlying DAUs.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Kennedy Creek	Kennedy Creek	KE-0-KE-1	5.58	Gradient: Low; Moderate. Confinement: Confined and Moderately Confined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Twenty unnamed tributaries. Associated wetlands. Potential CMZ. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Maytown silt loam (064), Distric Xerochrepts, 60 to 90% slopes (030), Giles silt loam, 0 to 3% slopes (038), Delphi very gravelly loam, 3 to 15% slopes (027), Delphi very gravelly loam, 15 to 30% slopes (028), Schneider very gravelly loam, 40 to 65% slopes (103), Newberg fine sandy loam (071), Yelm fine sandy loam, 15 to 30% slopes (128), Grove very gravelly sandy loam, 3 to 15% slopes (042), Indianola loamy sand, 3 to 15% slopes (047), Eld loam (031). Geologically sensitive area: No. Bedrock age: Pleistocene and Eocene, lower to middle. Lithology: Continental glacial till, Fraser-age; Basalt flows and flow breccias; Continental glacial outwash, Fraser-age; Continental glacial drift, pre-Fraser.	Reach may contain the following species: coho salmon, chum salmon, sea-run cutthroat, winter steelhead, resident cutthroat, and osprey. Anadromous fish are downstream of IF (insufficient flow) barrier in the downstream-most section of the reach.	Reach may contain the following habitats and site specifics: Wetlands and associated buffers: (few in central reach, mostly channel or right bank associated), Anadromous fish spawning and/or rearing (chum). A number of unnamed tributaries (not SMP) enter the creek in this reach. Stream corridor is forested, generally undisturbed adjacent to stream but with active forestry in jurisdiction and surrounding.	timber/ forestland	LTF	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (2 mapped private drives plus additional logging access), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (dissolved oxygen) and TMDLs for bacteria and temperature, contaminated sediments: no (if yes cite for what), shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	TCGDRS, 2009, ranked two riparian sites (Totten Eld Riparian293, 292, 283, 222) low restoration benefit, one wetland site (Totten Eld Wetland 3) moderate/high restoration benefit, four wetland sites (Totten Eld Wetland 151, 85, 2, 1) moderate restoration benefit, three wetland site s(Totten Eld Wetland 86, 87, 89) low restoration benefit.	Reach includes mapped barrier (IF - insufficient flow/falls). Active forestry in jurisdiction. While roads occur within shoreline jurisdiction, they are not present in wetland or floodplain areas.
Kennedy Creek	Kennedy Creek	KE-1-KE-2	1.59	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Five unnamed tributaries. Associated wetlands. Potential CMZ. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Eld loam (031), Delphi very gravelly loam, 3 to 15% slopes (027), Raught silt loam, 30 to 65% slopes (094), Grove very gravelly sandy loam, 3 to 15% slopes (042), McKenna gravelly silt loam, 0 to 5% slopes (065). Geologically sensitive area: No. Bedrock age: Pleistocene and Eocene, lower to middle. Lithology: Continental glacial drift, pre-Fraser; Basalt flows and flow breccias.	Reach may contain the following species: residential cutthroat, mountain quail, riffle sculpin.	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (upstream, tightly associated with channel or tributaries). Stream corridor generally vegetated (trees), cleared/maintained areas adjacent to residences (mostly upstream).	timber/ forestland, residential, undeveloped, commercial	RRR 1/5, LTF	conservancy	Public access within the reach: roads (Summit Lake Rd NW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (Summit Lake Rd NW upstream (south), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no (if yes cite for what), shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	TCGDRS, 2009, ranked one riparian site (Totten Eld Riparian 280) high restoration benefit, two riparian sites (Totten Eld Riparian 282, 278) moderate restoration benefit, four riparian sites (Totten Eld Riparian 222, 281, 279, 277) low restoration benefit, two wetland sites (Totten Eld Wetland 1, 269) moderate restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Beaver Creek	BL-9-0-BL-9-1	0.22	Gradient: Low. Confinement: Moderately confined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Beaver Creek flows into the Black River. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Norma silt loam (076), Eld loam (031), Spanaway gravelly sandy loam, 0 to 3% slopes. Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, riffle sculpin, reticulate sculpin, Pacific Lamprey, harlequin duck, wood duck.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach, primarily right/north bank and extensive), Anadromous fish spawning and/or rearing (chum, coho, winter steelhead), Habitat (wood duck nesting/breeding/foraging - downstream Black River area; Harlequin Duck breeding - downstream Black River area), Oak (forest or woodland canopy (oak-conifer), habitat (conifer deciduous)) - both banks downstream, 100-year floodplain (entire reach, narrow, jurisdiction does not include mapped floodplain to north). Both banks are entirely vegetated (trees), right bank largely forested in jurisdiction (residential), left bank forested with cleared areas adjacent (agricultural).	residential, agriculture	RRR 1/5, R 1/20	conservancy	Public access within the reach: roads (Littlerock Rd SW, 133rd Ave SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (2), bridges: yes (West Anderson), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence). Agriculture occurs within jurisdiction, but appears to be far enough landward that it does not directly affect shoreline (bank) vegetation.
Beaver Creek	Beaver Creek	BL-9-1-BL-9-2	2.1	Gradient: Low. Confinement: Moderately Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Norma silt loam (076), Spanaway gravelly sandy loam, 0 to 3% slopes, Alderwood gravelly sandy loam, 0 to 3% slopes (001), Everett very gravelly sandy loam, 0 to 3% slopes (032), Everett very gravelly sandy loam, 3 to 15% slopes (033), Yelm fine sandy loam, 0 to 3% slopes (126), Indianola loamy sand, 0 to 3% slopes (047), Indianola loamy sand, 3 to 15% slopes (047), Tisch silt loam (120). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, riffle sculpin, reticulate sculpin, Pacific Lamprey.	Reach may include the following habitats and site specifics: Wetland and associated buffer (few polygons both banks midreach and upstream), Anadromous fish spawning and/or rearing habitat (coho, chum, winter steelhead), Oak (canopy or woodland forest (oak-conifer), habitat (conifer-deciduous), 100-year floodplain (entire reach). Midreach and downstream largely continuously/entire forested both banks, except for an area of residential clearing (banks trees/shrubs) right/north bank), upstream vegetated is narrow/fragmented trees/shrubs with large areas of use-related clearing, to banks in some areas. Managed vegetation under highwire powerlines.	residential, agriculture, timber/forestland, other, recreation	R 1/20, RRR 1/5	conservancy	Public access within the reach: roads (Maytown Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (4 plus includes private drives), bridges: yes (private unmapped crossing per aerial), railroads: no, marinas: no, utilities: yes (3 - powerlines); Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes water quality gauge (sample site). Mapped non-culvert barrier (PD - undefined), unable to visualize, does not affect mapped salmonid distribution).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Beaver Creek	Beaver Creek	BL-9-2-BL-9-3	2.31	Gradient: Low. Confinement: Moderately Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Allen Creek and five unnamed tributaries. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Tisch silt loam (120), Everett very gravelly sandy loam, 0 to 3% slopes (032), Everett very gravelly sandy loam, 3 to 15% slopes (033), Cathart gravelly loam, 3 to 15% slopes (021), Cathart gravelly loam, 15 to 35% slopes (022), Norma silt loam (076), Tenino gravelly loam, 3 to 15% slopes (117). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age; Alpine glacial outwash, pre-Fraser; Continental glacial till, Fraser-age.	Reach may contain the following species: chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, riffle sculpin, Olympic mudminnow.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, extensive upstream left/south bank), Anadromous fish spawning and/or rearing habitat (coho, chum), 100-year floodplain (entire reach). Downstream reach vegetation is largely cleared to banks for adjacent agriculture use, midreach a long section has relatively undisturbed vegetation that includes wetland shrub/emergent areas and forested areas with clearing on the right/east bank for agriculture, the upper reach includes an area of complete clearing on both banks for agriculture and areas forested/shrub vegetation with some clearing, largely right/north bank.	residential, undeveloped, open space, agriculture, timber/forestland	RRR 1/5	conservancy	Public access within the reach: roads (Maytown Rd SW, Case Rd SW)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (2 culverts, 0 barriers), dams: no, armoring: no , Facilities: roads: yes (4 includes private drives), bridges: yes (3 - Case Rd, private unmapped crossing per aerial, unmapped railroad crossing per aerial), railroads: yes (1), marinas: no, utilities: yes (1 - powerlines); Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes water quality gauge (sample site).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Beaver Creek	Beaver Creek	BL-9-3-BL-9-4	1.07	Gradient: Low. Confinement: Moderately Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Three unnamed tributaries. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Cathart gravelly loam, 3 to 15% slopes (021), Cathart gravelly loam, 15 to 35% slopes (022), Norma silt loam (076), Everett very gravelly sandy loam, 0 to 3% slopes (032), Yelm fine sandy loam, 15 to 30% slopes (128). Geologically sensitive area: No. Bedrock age: Pleistocene; Eocene, lower to middle. Lithology: Continental glacial outwash, gravel, Fraser-age; Alpine glacial outwash, pre-Fraser; Continental glacial till, Fraser-age; Marine sedimentary rocks.	Reach may include the following species: coho, sea-run cutthroat, resident cutthroat, Olympic mudminnow.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, extensive to right/north upstream), Anadromous fish spawning and/or rearing habitat (coho), 100-year floodplain (entire reach). Downstream of Maytown Rd crossing, both banks are continuously vegetated (tree/shrub), some clearing and/or emergent vegetation landward on the right (north) bank. Upstream of Maytown Rd vegetation is limited to emergent with some shrub areas and clearing for adjacent use.	commercial, undeveloped, industrial, transportation	RRI	conservancy, urban	Public access within the reach: roads (I-5 crossing, I-5 access, Maytown Rd SW)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (3 includes I-5 and I-5 access), bridges: yes (3, I-5, Maytown Rd SW unmapped per aerial, railroad crossing unmapped per aerial), railroads: yes (1), marinas: no, utilities: yes (1 - powerlines); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Beaver Creek	Beaver Creek	BL-9-4-BL-9-5	3.18	Gradient: Low. Confinement: Moderately Confined; Unconfined Habitat: Small Tributary; Seasonally Flooded Wetland Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Nine unnamed tributaries. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Norma silt loam (076), Everett very gravelly sandy loam, 0 to 3% slopes (032), Indianola loamy sand, 3 to 15% slopes (047), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Cathart gravelly loam, 3 to 15% slopes (021), Tisch silt loam (120), Yelm fine sandy loam, 3 to 15% slopes (127), Norma fine sandy loam (075), Cathart gravelly loam, 15 to 35% slopes (022), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Alderwood gravelly sandy loam, 15 to 30% slopes (002), Semiahmoo muck (104). Geologically sensitive area: No. Bedrock age: Pleistocene; Holocene. Lithology: Continental glacial outwash, gravel, Fraser-age; Continental glacial till, Fraser-age; Alluvium.	Reach may include the following species: coho, sea-run cutthroat, resident cutthroat, Olympic mudminnow, Oregon spotted frog, mardon skipper, valley silverspot, Puget blues, and Taylor's (Whulge) checkerspot.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, both banks, largely defines jurisdiction, includes large lobe of associated wetland off right/north bank at upstream end of reach), Anadromous fish spawning and/or rearing habitat (coho), Habitat (Oregon spotted frog, upstream including lobe to north), 100-year floodplain (entire reach, both banks, but does not appear to be included with jurisdiction). Downstream of Beaver Creek Rd crossing, channel appears to be ditched through agricultural area with fringing emergent wetland on both banks, then alternates between forested areas and an emergent/shrub wetland complex on banks with some clearing landward associated with residential use (including buildings). Upstream of Beaver Creek Rd crossing the creek flows freely through well-defined corridor. Jurisdiction is largely forested with some residential clearing landward, the channel widens into emergent/shrub wetland complexes upstream. A large lobe of associated wetland, including channels, emergent, shrub, and forested areas, and areas that may have been cleared, off right bank (to north).	agriculture, undeveloped, transportation, residential, timber/forestland	RRR 1/5	urban, conservancy, not designated	Public access within the reach: roads (Reeder Rd SW, Maytown Rd SW, Beaver Creek Rd SW, Tilley Rd SW)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: yes (2 culverts, 0 barrier), dams: no, armoring: no, Facilities: roads: yes (4 plus private drives), bridges: yes (4 - Reeder Rd, Tilley Rd, unmapped railroad per aerial, unmapped private crossing per aerial), railroads: yes (1), marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to associated jurisdiction at upstream extent of jurisdiction - assume lobe to north is in BL-9-4-BL-9-5).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Beaver Creek	Beaver Creek	BL-9-5-BL-9-6	n/a	Gradient: Low. Confinement: Unconfined; Moderately Confined. Habitat: Seasonally Flooded Wetland; Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Reach is associated wetlands and stream above 20 cfs point. Beaver Creek and one unnamed tributary. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Tisch silt loam (120), Norma silt loam (076), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Muckilteo muck, drained (070), Spanaway-Nisqually complex, 2 to 10% slopes (114), Alderwood gravelly sandy loam, 15 to 30% slopes (002). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age; Continental glacial till, Fraser-age.	Reach may include the following species: coho, sea-run cutthroat, resident cutthroat, Oregon spotted frog.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach is large associated wetland complex which defines jurisdiction), Anadromous fish spawning and/or rearing habitat (coho), Habitat (Oregon spotted frog entire reach), Oak (forest or woodland canopy (oak-dominant), habitat (dominant) - upper extent only), 100-year floodplain (mapped floodplain is not jurisdictional - upstream of 20 CFS). The entire reach is a large associated wetland complex that is primarily shrub/forested; the channel is almost obscured by vegetation.	open space, residential	RRR 1/5	not designated	None noted	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to associated jurisdiction at upstream extent of jurisdiction - assume lobe to north is in BL-9-4-BL-9-5).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-10-BL-11	3.45	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Three unnamed tributaries. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Maytown silt loam (064), Eld loam (031), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Everett very gravelly sandy loam, 3 to 15% slopes (033), Cathart gravelly loam, 3 to 15% slopes (021), Cathart gravelly loam, 15 to 35% slopes (022), Semiahmoo muck (104), McKenna gravelly silt loam, 0 to 5% slopes (065), Spanaway-Nisqually complex, 2 to 10% slopes (114), Nisqually loamy fine sand, 3 to 15% slopes (074), Everett very gravelly sandy loam, 15 to 30% slopes (034). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Continental glacial till, Fraser-age; Continental glacial drift, pre-Fraser.	Reach may contain the following species: fall chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, harlequin duck, wood duck, mardon skipper.	Reach may include the following habitats and site specifics: Wetland and associated buffers (extensive, primarily right/west bank), Anadromous fish spawning and/or rearing habitat (fall chinook, chum), Habitat (wood duck nesting/breeding/foraging - entire reach, harlequin duck breeding - entire reach), Oak (forest or woodland canopy (oak-conifer, oak-dominant), habitat (conifer deciduous, dominant) - right/west bank entire reach landward area, 100-year floodplain (extensive, similar to wetland). Most of jurisdiction is vegetated wetland complex/corridor (shrub/emergent, some trees), well-defined channel with in-water vegetation. Mostly undeveloped with some clearing for residential or other purposes within jurisdiction.	undeveloped, residential, recreation, commercial, other, timber/forestland	PP, RRR 1/5	conservancy, natural	Public access within the reach: launches (WDFW Littlerock Water Access Site), trails (1 - bikeway), roads (Littlerock Rd SW), Parks/Gov't Land (Glacier Heritage Preserve)	Modifications: piers/docks/boat ramps: yes (WDFW launch), groins/jetties: no, culverts: yes (10 culverts, no barriers), dams: no, armoring: no, Facilities: roads: yes (1 - Littlerock Rd SW), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Landfill point may be a mapping error, actual feature appears to be outside of the shoreline zone; not addressed under impacted processes. Glacial Heritage Preserve includes trails, not clear whether they extend into shoreline jurisdiction (access). Numerous parcels on left bank are in private conservation.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-11-BL-12	1.68	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Mima Creek flows into the Black River in western end of reach. One unnamed tributary. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Everett very gravelly sandy loam, 15 to 30% slopes (034), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Spanaway-Nisqually complex, 2 to 10% slopes (114), Godfrey silty clay loam (041), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Maytown silt loam (064), Nisqually loamy fine sand, 3 to 15% slopes (074). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, harlequin duck, wood duck.	Reach may include the following habitats and site specifics: Wetland and associated buffers (extensive across well-defined stream corridor), Anadromous fish spawning and/or rearing habitat (fall chinook, chum), Habitat (wood duck nesting/breeding/foraging - entire reach, harlequin duck breeding - entire reach), Oak (forest or woodland canopy (oak-dominant) - small area right/north downstream, 100-year floodplain (extensive, similar to wetland). Most of jurisdiction is solidly vegetated wetland complex/corridor (shrub/emergent, some trees), well-defined channel with in-water vegetation. Mostly undeveloped with some clearing for agricultural or other purposes within jurisdiction.	agriculture, other, residential, undeveloped, forest/timberland	R 1/20, RRR 1/5	natural	Public access within the reach: trails (1 - Gate to Belmore trail - proposed)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence). Agriculture occurs within jurisdiction, but appears to be far enough landward that it does not directly affect shoreline (bank) vegetation. The Nature Conservancy owns a parcel in private conservation.
Black River	Black River	BL-12-BL-13	0.8	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Mima Creek flows into Black River at east end of reach. Three unnamed tributaries. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Maytown silt loam (064), Godfrey silty clay loam (041), Olympic silt loam, 5 to 20% slopes (077), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Spanaway gravelly sandy loam, 3 to 15% slopes (111), Shalcar variant muck (106). Geologically sensitive area: No. Bedrock age: Holocene, Pleistocene, and Eocene, lower to middle. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Basalt flows and flow breccias, Crescent Formation.	Reach may contain the following species: fall chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, harlequin duck, wood duck.	Reach may include the following habitats and site specifics: Wetland and associated buffers (extensive across well-defined stream corridor), Anadromous fish spawning and/or rearing habitat (fall chinook, chum), Habitat (wood duck nesting/breeding/foraging - entire reach, harlequin duck breeding - entire reach), 100-year floodplain (extensive, similar to wetland). Most of jurisdiction is solidly vegetated wetland complex/corridor (shrub/emergent, some trees), well-defined channel with in-water vegetation. Jurisdiction is essentially undeveloped except for agriculture north of the trail/rail grade (proposed Gate to Belmore).	undeveloped, residential, transportation, timber/forestland, other	R 1/20	natural	Public access within the reach: trails (1 - Gate to Belmore trail - proposed)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence). The Nature Conservancy owns parcels in private conservation.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-13-BL-14	0.86	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Two unnamed tributaries. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Shalcar variant muck (106), Maytown silt loam (064), Eld loam (031), Godfrey silty clay loam (041), Raught silt loam, 30 to 65% slopes (094), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Semiahmoo muck (104), Spanaway gravelly sandy loam, 3 to 15% slopes (111). Geologically sensitive area: No. Bedrock age: Holocene, Pleistocene, Eocene, lower to middle, and Eocene, middle to upper. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Marine sedimentary rocks; Basalt flows and flow breccias, Crescent Formation.	Reach may contain the following species: fall chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, harlequin duck, wood duck.	Reach may include the following habitats and site specifics: Wetland and associated buffers (extensive across well-defined stream corridor), Anadromous fish spawning and/or rearing habitat (fall chinook, chum), Habitat (wood duck nesting/breeding/foraging - entire reach, harlequin duck breeding - entire reach), Oak (forest or woodland canopy (oak-conifer), habitat (conifer deciduous)) - fringing left/south bank, 100-year floodplain (extensive, similar to wetland). Most of jurisdiction is solidly vegetated wetland complex/corridor (shrub/emergent, some trees), well-defined channel with in-water vegetation, slough extends from left/south bank into a section of the Black River Natural Area. Jurisdiction is essentially undeveloped except for the trail/rail grade (proposed Gate to Belmore).	undeveloped, residential, timber/forestland, agriculture	PP, R 1/20, RRR 1/5	natural	Public access within the reach: trails (1 - Gate to Belmore trail - proposed)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes Black River Natural Area, which does not provide public access except for Gate to Belmore trail (proposed). Contaminated soil, groundwater, surface water, and air is located at Rhodes Chemical Company, at 10500 Gate Road SW, just outside shoreline jurisdiction.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-14-BL-15	1.32	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Three unnamed tributaries. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Godfrey silty clay loam (041), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Spanaway gravelly sandy loam, 3 to 15% slopes (111), Maytown silt loam (064), Chehalis silt loam (026), Newberg loam (072). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Basalt flows and flow breccias, Crescent Formation.	Reach may contain the following species: fall chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, harlequin duck, wood duck.	Reach may include the following habitats and site specifics: Wetland and associated buffers (extensive across well-defined stream corridor), Anadromous fish spawning and/or rearing habitat (fall chinook, chum), Habitat (wood duck nesting/breeding/foraging - entire reach, harlequin duck breeding - entire reach), Oak (forest or woodland canopy (oak-conifer), habitat (conifer deciduous)) - fringing left/south bank, 100-year floodplain (extensive, similar to wetland). Most of jurisdiction is solidly vegetated wetland complex/corridor (shrub/emergent, some trees), well-defined channel with in-water vegetation. This is the downstream extent of this feature. What appears to be clearing downstream, both banks, is mapped as emergent wetland, but the area is defined as agricultural use - unclear. If clearing is a natural feature, jurisdiction is essentially undeveloped except for the trail/rail grade (proposed Gate to Belmore), except for ponds associated with commercial salmonid egg facility.	agriculture, industrial, open space, timber/forestland	R 1/20, RRR 1/5, PP	natural	Public access within the reach: trails (1 - Gate to Belmore trail - proposed)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to extensive/complex associated jurisdiction). Aquaculture very small encroachment at landward edge of jurisdiction by ponds for commercial salmonid egg facility, typical aquaculture impacts do not apply. The Nature Conservancy owns a parcel in private conservation in this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-15-BL-16	0.67	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: One unnamed tributary. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Maytown silt loam (064), Godfrey silty clay loam (041), Newberg loam (072), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Spanaway-Nisqually complex, 2 to 10% slopes (114). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, harlequin duck, wood duck, Olympic mud minnow.	Reach may include the following habitats and site specifics: Wetland and associated buffers (upstream extensive from right/north bank, downstream narrows to channel only), Anadromous fish spawning and/or rearing habitat (fall chinook, chum), Habitat (wood duck nesting/breeding/foraging - entire reach, harlequin duck breeding - entire reach), Oak (forest or woodland canopy (oak-conifer), habitat (conifer deciduous, conifer mixed)) - associated jurisdiction far landward to south. 100-year floodplain (upstream extensive both banks, including large area of complicated associated jurisdiction to south to Chehalis River, downstream narrows similar to wetland). Banks have continuously, largely narrow vegetation (shrub/tree) with clearing for agriculture/residential landward. The complicated associated jurisdiction to the south includes vegetated (tree/shrub) wetlands and tributary drainages and areas cleared for a number of uses including roads, agriculture, residential, etc.	agriculture, undeveloped residential, other	R 1/20, RRR 1/5, LTA	natural, conservancy, rural	Public access within the reach: roads (Holm Rd SW, Laymon Rd SW, School Land Rd SW, Forstrom Rd SW, Highway 12, 180th Ln SW, 183rd Ave SW, Leon St SW, 185th Ave SW, Marble St SW, 188th Ave SW)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: yes (10 culverts, no barriers), dams: no, armoring: no, Facilities: roads: yes (13 includes private roads), bridges: 5 (Soderland Rd culverts, Tiapo Rd, School Land Bridge, School Land Culvert, railroad bridge), railroads: yes (1), marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to extensive/complex associated jurisdiction). Associated jurisdiction extends south to Chehalis River, using basin lines to determine extent for individual reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-16-BL-17	3.62	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Two unnamed tributaries. Associated wetlands. Extensive 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Maytown silt loam (064), Chehalis silt loam (026), Newberg loam (072), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Spanaway gravelly sandy loam, 3 to 15% slopes (111), Spanaway-Nisqually complex, 2 to 10% slopes (114), Mukilteo muck (069), Godfrey silty clay loam (041). Geologically sensitive area: Yes. Bedrock age: Holocene; Pleistocene; Eocene, middle to upper. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Marine sedimentary rocks.	Reach may contain the following species: fall chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, harlequin duck, wood duck.	Reach may include the following habitats and site specifics: Wetland and associated buffers (upstream primarily channel, downstream relatively minimal associated wetlands both banks, also side channel/island area), Anadromous fish spawning and/or rearing habitat (fall chinook, chum, winter steelhead), Habitat (wood duck nesting/breeding/foraging - entire reach, harlequin duck breeding - entire reach), 100-year floodplain (primarily left/south bank, upstream primarily within tight bend, downstream extends in large/complex area of associated jurisdiction to Chehalis River). Left/south bank downstream includes forested island area formed by side channel. River banks are largely continuously vegetated (trees/shrub), narrow in area of residential/agricultural use, some areas downstream are cleared to banks, one length of the downstream reach is well vegetated landward on both banks. The complicated associated jurisdiction is primarily agriculture and is based on 100-year floodplain.	agriculture, residential, undeveloped, other	LTA, R 1/20, RRR 1/5	conservancy, rural	Public access within the reach: launches (WDFW Black River Gate Water Access site), roads (170th Ave SW, Moon Rd SW, 175th Ave SW, McCormick Rd SW, Anderson Rd SW, 183rd Ave SW, Holm Rd SW)	Modifications: piers/docks/boat ramps: yes (boat ramp), groins/jetties: no, culverts: yes (3 culverts, no barriers), dams: no, armoring: no (cannot clearly see armoring on aerials but it may exists where land use is adjacent to eroding banks and at crossings), Facilities: roads: yes (13 includes private roads), bridges: 3 (Gate Rd, McCormick Rd, Mood Rd), railroads: yes (1), marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to extensive/complex associated jurisdiction). Reach includes water quality gauge (sample site). Reach includes DOE permit site (farm, large).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-2-BL-3	0.23	Gradient: Low. Confinement: Unconfined. Habitat: Seasonally flooded wetland. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes, very small area. Surface hydrology: Associated wetlands; 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), McKenna gravelly silt loam, 0 to 5% slopes (065), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, green heron, wood duck, mink.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach, extensive, defines jurisdiction), Habitat (green heron nesting - entire reach, waterfowl concentration - entire reach), 100-year floodplain (entire reach, extensive, with wetland defines jurisdiction). Land use is primarily undeveloped, with some residential and recreational. Entire jurisdiction is vegetated (shrub/emergent, some trees) and comprises a continuous wetland/stream corridor.	undeveloped, residential, recreation	RRR 1/5, R 1/20, SFL	natural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Features noted without digitized polygons, may not exactly line up with final digitization. Large parcel owned by USFW for conservation (Black River Mangement Unit).
Black River	Black River	BL-3-BL-4	1.12	Gradient: Low. Confinement: Unconfined. Habitat: Seasonally Flooded Wetland and Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Dempsey Creek joins Black River at south end of reach. One unnamed tributary. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), McKenna gravelly silt loam, 0 to 5% slopes (065), Alderwood gravelly sandy loam, 0 to 3% slopes (001), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Giles silt loam, 3 to 15% slopes (039), Kapowsin silt loam, 3 to 15% slopes (051). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, Oregon spotted frog, green heron, wood duck, mink.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach, extensive, defines jurisdiction), Habitat (green heron nesting - entire reach, waterfowl concentration - entire reach), 100-year floodplain (entire reach, extensive). Land use is primarily undeveloped or timber/forestland. The entire jurisdiction is vegetated, including channel (shrub/emergent, some trees) with trees at upland edges, and comprises a continuous wetland/stream corridor.	undeveloped, residential, timber/forestland	R 1/20, SFL	natural	Land Areas within the Black River are currently closed to public access. The river itself is open to the public by boat only. There are no public boat launches in this reach.	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (1 - gasline); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence). Large parcel owned by USFW for conservation (Black River Mangement Unit).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-4-BL-5	3.57	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes, very small area. Potential landslide area (>=15% slope): Yes, small area. Surface hydrology: Salmon Creek flows into the Black River. Three unnamed tributaries. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Bellingham silty clay loam (014), Yelm fine sandy loam, 3 to 15% slopes (127), Alderwood gravelly sandy loam, 0 to 3% slopes (001), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Everett very gravelly sandy loam, 0 to 3% slopes (032), Everett very gravelly sandy loam, 3 to 15% slopes (033), Spanaway gravelly sandy loam, 3 to 15% slopes (111), McKenna gravelly silt loam, 0 to 5% slopes (065), Norma silt loam (076). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Continental glacial outwash, sand, Fraser-age; Continental glacial till, Fraser-age.	Reach may contain the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, green heron, wood duck.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach extensive, defines jurisdiction), Anadromous fish spawning and/or rearing (fall chinook, coho), Habitat (waterfowl concentration - entire reach, narrows downstream, green heron nesting - entire reach, narrows downstream), 100-year floodplain (entire reach, along with wetlands defines jurisdiction). Jurisdiction essentially undeveloped wetland corridor (emergent, shrub, and forested areas).	timber/forestl and, undeveloped, mining, industrial, residential	R 1/20, RRR 1/5	natural	Land Areas within the Black River are currently closed to public access. The river itself is open to the public by boat only. There are no public boat launches in this reach.	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (1 - gasline); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover. Mining related uses may alter hydrology and sediment processes due to loss of vegetative cover.	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-5-BL-6	0.27	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Salmon Creek flows into Black River at north end of reach. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), McKenna gravelly silt loam, 0 to 5% slopes (065), Everett very gravelly sandy loam, 0 to 3% slopes (032), Norma silt loam (076). Geologically sensitive area: No. Bedrock age: Holocene. Lithology: Alluvium.	Reach may contain the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, green heron, wood duck.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach, extensive, defines jurisdiction), Anadromous fish spawning and/or rearing (fall chinook, coho), Habitat (waterfowl concentration - entire reach, primarily right/west bank), 100-year floodplain (entire reach). Banks entirely vegetated (emergent/shrub), forested areas of wetland, reach comprises stream/wetland corridor.	residential, undeveloped, other	R 1/20, RRR 1/5	natural	Public access within the reach: Land Areas within the Black River are currently closed to public access. The river itself is open to the public by boat only. A public boat launch (WDFW launch facility, not listed as part of the Water Access Site program) is locatd at 110th street.	Modifications: piers/docks/boat ramps: yes, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence). Reach includes DOE permit site (Farm, Large).
Black River	Black River	BL-6-BL-7	2.03	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Bloom's Ditch and two unnamed tributaries. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Everett very gravelly sandy loam, 30 to 50% slopes (035), Yelm fine sandy loam, 3 to 15% slopes (127), McKenna gravelly silt loam, 0 to 5% slopes (065), Everson clay loam (036), Everett very gravelly sandy loam, 0 to 3% slopes (032), Everett very gravelly sandy loam, 3 to 15% slopes (033), Norma silt loam (076), Shalcar variant muck (106), Maytown silt loam (064), Spanaway gravelly sandy loam, 0 to 3% slopes (110). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Continental glacial outwash, sand, Fraser-age; Continental glacial moraines, Fraser-age.	Reach may contain the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, wood duck.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, downstream extensive primarily right/west bank), Anadromous fish spawning and/or rearing (fall chinook, coho, steelhead), Habitat (wood duck - entire reach, waterfowl concentration, downstream reach area), 100-year floodplain (entire reach, downstream primarily right/west bank). Reach is primarily undeveloped or in agriculture/timber, comprises wetland/stream corridor that is almost entirely vegetated (trees, shrub, emergent) except in cleared areas for agriculture or residential uses. Reach includes extensive area upstream off right/west bank where associated jurisdiction extends past Endicott Rd.	undeveloped, residential, timber/forestl and, agriculture	R 1/20	natural	Public access within the reach: Land Areas within the Black River are currently closed to public access. The river itself is open to the public by boat only. Public boat launches are available at roads (110th Ave SW, 123rd Ave SW). Public access is also available via trails (1 - bikeway), and roads (110th Ave SW, Endicott Rd SW, 123rd Ave SW).	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (4 culverts, 0 barriers), dams: no, armoring: no, Facilities: roads: yes (4), bridges: yes (3 - 110th Ave, 123rd Ave, Endicott Rd), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Reach includes mapped historic site (Otto House). At least some agricultural lands are now owned by USFWS and may be taken out of agriculture (or have been already) as part of Black River Unit restoration.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-7-BL-8	0.52	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Waddell Creek flows into Black River at south end of reach. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Eld loam (031). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, wood duck.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (primarily channel with right/west bank areas upstream), Anadromous fish spawning and/or rearing (fall chinook, coho), Habitat (wood duck nesting/brood/foraging area - entire reach, waterfowl concentration - upstream area), Oak (forest or woodland canopy (oak-conifer), oak habitat (conifer deciduous)) - downstream area, 100-year floodplain (entire reach, narrows downstream). Some agricultural lands owned by USFWS (Black Lake Unit). Upstream areas entirely cleared of trees/shrubs, otherwise a narrow, continuous band of shoreline vegetation (shrub/forest) exists along both banks, cleared for agricultural or other beyond banks.	undeveloped, residential, agriculture, transportation	R 1/20	conservancy, urban	Public access within the reach: trails (1 - bikeway), roads (110th Ave SW, Endicott Rd SW, 123rd Ave SW)	Modifications: piers/docks/boat ramps: yes, groins/jetties: no, culverts: yes (1 culverts, 0 barrier), dams: no, armoring: no, Facilities: roads: yes (2 including private), bridges: yes (River St SW - private, unmapped per aerial), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence). At least some agricultural lands are now owned by USFWS and may be taken out of agriculture (or have been already) as part of Black River Unit restoration.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-8-BL-9	0.51	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Beaver Creek flows into Black River at south end of reach, Waddell Creek at north end of reach. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Spanaway gravelly sandy loam, 0 to 3% slopes (110), Eld loam (031), Maytown silt loam (064), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Continental glacial moraines, Fraser-age.	Reach may contain the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, harlequin duck, wood duck.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (primarily channel except extensive right/west bank areas downstream), Anadromous fish spawning and/or rearing (fall chinook, coho), Habitat (wood duck nesting/brood/foraging - entire reach, harlequin duck breeding - downstream), Oak (forest or woodland canopy (oak-conifer), oak habitat (conifer deciduous)) - entire reach, 100-year floodplain (entire reach, extensive right/west bank areas downstream). Some agricultural lands owned by USFWS (Black Lake Unit). Adjacent use is primarily agricultural or residential; vegetation is narrow/fragmented tree/shrub with clearing in most of jurisdiction landward.	industrial, undeveloped, commercial, other, residential, agriculture, recreation	R 1/20, RRI, RRR 1/5	conservancy, urban	Public access within the reach: trails (1 - Gate to Belmore - proposed), roads (128th Ave SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (2 - Black River (128th Ave), unmapped per aerial along trail/rail grade), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence). Reach includes water quality gauges (3 - stream gauge, stick gauge, sample site).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Black River	BL-9-BL-10	1.55	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Beaver Creek flows into Black River at north end of reach. Two unnamed tributaries. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Eld loam (031), Maytown silt loam (064), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Continental glacial moraines, Fraser-age; Continental glacial drift, pre-Fraser.	Reach may contain the following species: fall chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, harlequin duck, wood duck, Olympic mud minnow.	Reach may include the following habitats and site specifics: Wetland and associated buffers (extensive, primarily right/west bank per mapped channel), Anadromous fish spawning and/or rearing habitat (fall chinook, chum, coho), Habitat (wood duck nesting/breeding/foraging - entire reach, harlequin duck breeding - entire reach), Oak (forest or woodland canopy (oak-conifer, oak-dominant), habitat (conifer deciduous, dominant) - minimal at upstream left (east) and downstream right (west), 100-year floodplain (extensive, similar to wetland). Area to right of mapped channel is primarily a large wetland complex with channels, emergent/shrub vegetation, and areas of trees for most of reach with agriculture adjacent on left (east) bank. Agriculture more prominent downstream, but channels are typically vegetated with narrow, somewhat fragmented trees/shrubs.	agriculture, undeveloped, recreation, transportation, agriculture, residential	R 1/20, RRR 1/5	conservancy	Public access within the reach: trails (2 - Gate to Belmore - proposed, bikeway), roads (Littlerock Rd SW)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: yes Havvaski Waterski Pond mapped dam in jurisdiction, but does not affect Black River), armoring: no, Facilities: roads: yes (1), bridges: yes (3 - W. Anderson (Littlerock Rd), unmapped private crossings per aerial), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence). Reach includes mapped historic site (Thomas Rutledge House and Barn). Mapped dam in jurisdiction (Havvaski Waterski Pond), but does not affect Black River.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Prairie Creek	Chehalis River	CH-0-CH-1	0.37	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Chehalis silt loam (26), Godfrey silty clay loam (41), Newberg loam (72) Geologically sensitive area: No Bedrock age: Holocene; Miocene, lower to middle Lithology: alluvium; marine sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, osprey, Eastern wild turkey.	Reach may include the following habitats and site specifics: Wetland and associated buffers (left bank (south) extensive complex through undeveloped and agricultural lands), Anadromous fish spawning and/or rearing (fall chinook). 100-year floodplain (left bank (south) extensive entire reach). Shoreline vegetation is fragmented and/or narrow (shrubs/trees) with clearing, roads, and buildings within jurisdiction, agriculture adjacent. Associated jurisdiction is extensive to south based on wetland and floodplain at downstream end of Michigan drainage (confluence downstream outside of county).	agriculture, timber/forestland, residential, undeveloped, transportation	RRR 1/5, LTA	conservancy	Public access within the reach: roads (Independence Rd SW, 201st Ave SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (4 culverts, 0 barriers), dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (1 - Independence Rd bridge over associated tributary) , railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Left (south) bank only; right (north) bank is Chehalis Indian Tribe reservation land - description is for County (left) only. Agriculture occurs within jurisdiction, but is far enough landward that it does not directly affect shoreline (bank) vegetation.
Prairie Creek	Chehalis River	CH-1-CH-2	0.95	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Chehalis silt loam (26), Godfrey silty clay loam (41), Newberg fine sandy loam (71), Newberg loam (72), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Oligocene-Eocene; Miocene, lower to middle Lithology: alluvium; marine sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, osprey, Eastern wild turkey.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (instream/bank at river bend (downstream/east); other wetlands within jurisdiction are isolated or appear to be associated with the Michigan drainage (confluence with Chehalis outside of County), Anadromous fish spawning and/or rearing (fall chinook), 100-year floodplain (left bank entire reach, extends south to Michigan drainage). There are large sandy bars/islands present at depositional bends. Shoreline vegetation largely intact (large forested area downstream, shrub), narrows dramatically upstream. Much of jurisdiction away from river has been modified for agriculture and residential uses.	undeveloped, agriculture, timber/forestland, transportation, residential, other	LTA, RRR 1/5	conservancy	Public access within the reach: roads (Independence Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Left (south) bank only; right (north) bank is Chehalis Indian Tribe reservation land. Agriculture occurs within jurisdiction, but is far enough landward that it does not directly affect shoreline (bank) vegetation.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Prairie Creek	Chehalis River	CH-2-CH-3	1.47	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Semiahmoo muck (104), Chehalis silt loam (26), Godfrey silty clay loam (41), Maytown silt loam (64), Newberg fine sandy loam (71), Newberg loam (72), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Oligocene-Eocene; Pleistocene; Miocene, lower to middle Lithology: alluvium; marine sedimentary rocks; continental glacial outwash, Fraser-age	Reach may include the following species: fall chinook, spring chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, osprey, Eastern wild turkey.	Reach may include the following habitats and site specifics: Wetland and associated buffer (left/south bank adjacent vegetation for most of reach, right/north bank includes remnant oxbows, also vegetated, and adjacent most of reach), Anadromous fish spawning and/or rearing (fall chinook), 100-year floodplain (entire reach both banks, left/south bank extends to Michigan drainage, right/north bank extends to basin boundary (then to Black River)). There are large sandy bars/islands present at depositional bends. Shoreline vegetation largely intact both banks, including large forested/shrub areas, modified for agriculture landward; width varies and jurisdiction includes roads, residences, and agricultural areas.	agriculture, undeveloped, other, residential, transportation	LTA, RRR 1/5	conservancy, rural	Public access within the reach: roads (Independence Rd SW, Moon Rd SW)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (5 culverts, 0 barriers), dams: no, armoring: no , Facilities: roads: yes (4 including private drives), bridges: no, railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity.	None noted	Reach includes 1 non-culvert barrier PF (not defined) on tributary (Michigan drainage) and one NDC culvert (Independence Rd). Agriculture occurs within jurisdiction, but is far enough landward that it does not directly affect shoreline (bank) vegetation.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Prairie Creek	Chehalis River	CH-3-CH-4	0.78	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Chehalis silt loam (26), Godfrey silty clay loam (41), Melbourne silty clay loam, 20 to 40 percent slopes (67), Newberg fine sandy loam (71), Newberg loam (72), Riverwash (95), Salkum silty clay loam, 8 to 15 percent slopes (98) Geologically sensitive area: No Bedrock age: Holocene; Oligocene-Eocene; Pleistocene Lithology: alluvium; marine sedimentary rocks; continental glacial outwash, Fraser-age	Reach may include the following species: fall chinook, spring chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, wood duck, mink, Olympic mudminnow.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (both banks downstream and upstream ends, also in adjacent jurisdiction both banks), Anadromous fish spawning and/or rearing (fall chinook), Habitat: wood duck breeding area, 100-year floodplain (both banks, entire reach, extensive entire right/north bank, landward of river left bank downstream from Independence Rd. bridge). There are large sandy bars/islands at mouth of Scatter Creek. Shoreline vegetation is fragmented/narrow (shrub/trees) on both banks, better quality of right (south) bank, both banks extensive clearing for agriculture landward of river and in some cases to bank.	residential, undeveloped, agriculture, transportation, other, timber/forestland	LTA, RRR 1/5	conservancy, rural	Public access within the reach: roads (Independence Rd SW, Forstrom St SW/188th Ave SW, Lundeen Rd SW, Michigan Hill Rd SW)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (5 culverts, 0 barriers), dams: no, armoring: no , Facilities: roads: yes (4 including private drives), bridges: yes (Independence Rd midreach), railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes historic properties (Jaaska House and Warehouse). Reach includes water quality gauge (stick gauge and sample site).
Prairie Creek	Chehalis River	CH-4-CH-5	1.47	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Chehalis silt loam (26), Godfrey silty clay loam (41), Melbourne silty clay loam, 20 to 40 percent slopes (67), Melbourne silty clay loam, 40 to 65 percent slopes (68), Newberg fine sandy loam (71) Geologically sensitive area: No Bedrock age: Holocene; Oligocene-Eocene Lithology: alluvium; marine sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, wood duck, mink, Olympic mudminnow.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (right bank adjacent to downstream/west part of reach and where drainages meet river; left bank limited to upstream edge along bank and landward areas where associated wetlands occur in agricultural areas), Anadromous fish spawning and/or rearing (fall chinook), 100-year floodplain (river only most of left/south bank, entire right/north bank extensive to north into Scatter Creek basin). There are large sandy bars/island present at mouth of Scatter Creek. Left (south) bank mostly vegetated immediately adjacent to bank, right (north) bank mixed minimal trees/shrubs, otherwise agricultural including up to banks.	residential, undeveloped, agriculture, transportation, other, timber/forestland	LTA, RRR 1/5	conservancy, rural	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Prairie Creek	Chehalis River	CH-5-CH-6	1.47	Gradient: Low Confinement: Unconfined Habitat: Large Tributary; Side Channel Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Chehalis silt loam (26), Godfrey silty clay loam (41), Melbourne silty clay loam, 20 to 40 percent slopes (67), Melbourne silty clay loam, 40 to 65 percent slopes (68), Newberg fine sandy loam (71), Newberg loam (72) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene; Oligocene-Eocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age; alpine glacial outwash, pre-Fraser; marine sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, bald eagle, Olympic mudminnow.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (entire reach, extensive lateral jurisdiction for right/north bank), Anadromous fish spawning and/or rearing (fall chinook), 100-year floodplain (both sides, entire reach, extensive right/north bank). There are large sandy islands/bars present in depositional areas. Left (south) bank mostly continuously vegetated (shrub/forest), including timber/forestland. Right (north) bank mix of forested and modified/cleared areas for agriculture, from river landward, including some bank areas.	residential, agriculture, undeveloped, transportation	RRR 1/5 , R 1/20, LTA	conservancy, rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization.
Prairie Creek	Chehalis River	CH-6-CH-7	0.55	Gradient: Low Confinement: Unconfined Habitat: Large Tributary; Side Channel Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Chehalis silt loam (26), Godfrey silty clay loam (41), Newberg loam (72) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene; Oligocene-Eocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age; alpine glacial outwash, pre-Fraser; marine sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, bald eagle.	Reach may include the following habitats and sites specifics: Wetlands and associated buffers (entire reach, extensive left/south bank - remnant oxbows), Anadromous fish spawning and/or rearing (fall chinook), 100-year floodplain (entire reach, both banks, entire jurisdiction). There are depositional sandy bar/island present in reach, as well as a slough/side channel. Left (south) bank is entirely vegetated (trees/shrub/emergent), modification for agriculture far landward from river; right (north) bank is fragmented/modified vegetation (trees/shrubs) much areas cleared for agriculture up to banks.	agriculture, undeveloped, residential, timber/forestland	LTA	conservancy, rural	Public access within the reach: roads (Bicknell Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (3 culverts, no barriers): no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Prairie Creek	Chehalis River	CH-7-CH-8	0.75	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Godfrey silty clay loam (41), Newberg fine sandy loam (71), Newberg loam (72) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age	Reach may include the following species: fall chinook, spring chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, bald eagle.	Reach may include the following habitats and site specifics: Wetlands and associated buffer (entire reach, including Prairie Creek drainage right/north bank and most of left/south bank), Anadromous fish spawning and/or rearing (fall chinook), 100-year floodplain (entire reach, extensive left/south bank). Reach includes sandy depositional areas. Left (south) bank forested vegetation is largely continuous with some areas of agriculture landward, right bank vegetation is fragmented/modified with agriculture/residential areas to banks in places.	agriculture, undeveloped, residential, timber/forestland	LTA, RRR 1/5	conservancy, rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes historic properties (Jamestown Granary). Features noted without digitized polygons, may not exactly line up with final digitization.
Prairie Creek	Chehalis River	CH-8-CH-9	1.16	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Chehalis silt loam (26), Godfrey silty clay loam (41), Newberg fine sandy loam (71), Newberg loam (72), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Oligocene-Eocene Lithology: alluvium; marine sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass.	Reach may include the following habitats and site specifics: Wetlands and associated buffers (both banks, entire right/east bank adjacent and landward where forested), Anadromous fish spawning and/or rearing (fall chinook), Oak forest or woodland canopy (oak conifer/oak dominant) and habitat (conifer mixed, conifer deciduous, conifer dominant) - right (east) bank only associated with Prairie Creek and associated wetland/floodplain south of 210th near Old Highway 99, 100-year floodplain (extensive both banks, right/east bank complex). Right (east) bank mostly vegetated (trees - some lateral extent), with agriculture landward and to banks upstream (south). Left (west) bank some forested areas (narrow) downstream (north), largely agricultural to banks in upstream (south) area.	agriculture, commercial, residential, undeveloped	LTA, RRR 1/5, RL 1/1, PID	conservancy, rural	Public access within the reach: roads (210th Ave SW, Old Highway 99)	Modifications: piers/docks/boat ramps: no, groins/jetties: no: culverts: yes (1 culvert, no barriers), dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Mapped historic properties (State Training School for Girls Administration Building) appears to be mis-mapped based on aerial photo review. Features noted without digitized polygons, may not exactly line up with final digitization.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Prairie Creek	Chehalis River	CH-9-CH-10	0.78	Gradient: Low. Confinement: Unconfined. Habitat: Large Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Three unnamed tributaries. Associated wetlands. Extensive 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Newberg fine sandy loam (71), Newberg loam (72), Chehalis silt loam (26), Godfrey silty clay loam (41), Melbourne silty clay loam, 40 to 65% slopes (068), Galvin silt loam, 0 to 55 slopes (037), Nisqually loamy fine sand, 0 to 3% slopes (073), Indianola loamy sand, 0 to 3% slopes (046). Geologically sensitive area: No. Bedrock age: Holocene; Oligocene-Eocene. Lithology: Alluvium; Marine sedimentary rocks.	Reach may include the following species: fall chinook, spring chinook, chum, coho, winter steelhead, sea-run cutthroat, resident cutthroat, largemouth bass, Roosevelt elk.	Reach may include the following habitats and site specifics: Wetland and associated buffer (mostly right/east bank, minimal left/west bank), Anadromous fish spawning and/or rearing (fall chinook), Habitat (Roosevelt elk winter range (Willapa herd)), 100-year floodplain (extensive right/east bank, minimal left/west bank). Left/west bank continuous vegetation, entirely forested (active forestry), right bank entirely agricultural with narrow band of trees (fragmented) along much of bank.	agriculture, residential, undeveloped, transportation	LTA, RRR 1/5, RL 1/1	conservancy, rural	Public access within the reach: roads (Prather Rd SW, Old Highway 99, Meadows Rd SW, 219th Ave SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (6 includes private), bridges: yes (Prather Rd bridge upstream/north end of reach, railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Reach includes water quality gauge (stick gauge, sampling site, stream gauge, and USGS gauge).
Dempsey Creek	Dempsey Creek	BL-4-0-BL-4-1	1.67	Gradient: Low. Confinement: Moderately Confined and Unconfined. Habitat: Seasonally Flooded Wetland and Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Three unnamed tributaries. Extensive associated wetlands. 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Bellingham silty clay loam (014), Yelm fine sandy loam, 3 to 15% slopes (127), Giles silt loam, 3 to 15% slopes (039), Godfrey silty clay loam (041), Norma silt loam (076), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Alderwood gravelly sandy loam, 15 to 30% slopes (003). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, sand, Fraser-age; Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, Olympic mud minnow, Oregon spotted frog, green heron, wood duck.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach, extensive within well-defined stream corridor), Anadromous fish spawning and/or rearing (coho, winter steelhead, Habitat (Oregon spotted frog egg laying area, green heron nesting, waterfowl concentration, Olympic mud minnow), 100-year floodplain (entire reach include lobes on both banks). The reach is entirely vegetated within jurisdiction, an extensive shrub/forest wetland with minimal adjacent forestland and residential areas; minimal active forestry in jurisdiction.	timber/forestland, undeveloped	RRR 1/5, R 1/20	natural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: (1 - private drive), bridges: 1 (unmapped private crossing per aerial), railroads: no, marinas: no, utilities: yes (1 - gasline); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Dempsey Creek	Dempsey Creek	BL-4-1-BL-4-2	n/a	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Darlin Creek, Stony Creek, and one unnamed tributary flow into Dempsey Creek. Associated wetlands. 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Godfrey silty clay loam (041), Giles silt loam, 0 to 3% slopes (039), Giles silt loam, 3 to 15% slopes (039), Puget silt loam (088), Alderwood gravelly sandy loam, 0 to 3% slopes (001), Yelm fine sandy loam, 0 to 3% slopes (126), Yelm fine sandy loam, 3 to 15% slopes (127), Norma silt loam (076), Kapowsin silt loam, 3 to 15% slopes (051), Tenino gravelly loam, 3 to 15% slopes (117). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, sand, Fraser-age; Continental glacial outwash, gravel, Fraser-age; Continental glacial moraines, Fraser-age.	Reach may contain the following species: coho, sea-run cutthroat, resident cutthroat, Oregon spotted frog, Olympic mud minnow.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (above Delphi Rd some areas of channel then no wetland until large associated area that defines upper reach), Anadromous fish spawning and/or rearing (coho), Habitat (Oregon spotted frog egg laying area, waterfowl concentration, Olympic mud minnow), 100-year floodplain (mid and lower reach, including tributary up left/west bank). Mid and lower reach is largely cleared to banks with only scattered trees/shrubs, upper reach is entire forested.	timber/forestl and, undeveloped, residential, agriculture, open space	RRR 1/5	natural	Public access within the reach: roads (Delphi Rd SW)	Modifications: piers/docks/boat ramps: no, grоins/jetties: no, culverts: yes (3 culverts, no barriers), dams: no, armoring: no , Facilities: roads: yes (1), bridges: yes (Dempsey Creek), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Several parcels in private conservation in this reach.
Johnson Creek	Johnson Creek	SK-11-0-SK-11-1	3.03	Gradient: Low Confinement: Unconfined, Moderately Confined Habitat: Small Tributary, Seasonally Flooded Wetland Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Baumgard loam, 40 to 65 percent slopes (10), Baumgard-Pheeney complex, 40 to 65 percent slopes (12), Wilkeson silt loam, 20 to 40 percent slopes (124), Chehalis silt loam (26), Godfrey silty clay loam (41), Baldhill very stony sandy loam, 0 to 3 percent slopes (5), Baldhill very stony sandy loam, 3 to 15 percent slopes (6), Norma silt loam (76) Geologically sensitive area: No Bedrock age: Holocene; Eocene; Pleistocene Lithology: alluvium; andesite flows;	Reach may contain the following species: coho, sea-run cutthroat, resident cutthroat, harlequin duck, wood duck, Eastern wild turkey, Roosevelt and Rocky Mountain elk.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach, extensive, with 100-year floodplain defines jurisdiction), Anadromous fish spawning and/or rearing (coho), Habitat (harlequin duck breeding - both banks downstream, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd)/Skookumchuck elk area. Undeveloped areas are largely forested, including active forestry, more developed areas include residential, agricultural, and other uses. Below Johnson Creek road jurisdiction is entirely vegetated shrub/forest wetland, upstream vegetation is narrow/fragmented (trees) adjacent to banks, with	residential, undeveloped, open space, agriculture, commercial, timber/forestl and	RRR 1/5	not designated	Public access within the reach: roads (Johnson Creek Rd SE)	Modifications: piers/docks/boat ramps: no, grоins/jetties: no, culverts: yes (9 culverts, 0 barriers), dams: no, armoring: no (cannot clearly see armoring on aerials but it may exist where land use is adjacent to eroding banks and at crossings), Facilities: roads: yes (3 includes unmapped private drives per aerials), bridges: 3(Johnson Creek Rd, 2 unmapped private drive per aerial), railroads: no, marinas: no, utilities: yes (3 - powerline, gasline, fuel); Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				continental glacial drift, Fraser-age.		cleared areas (mowed/maintained) and buildings landward.						storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.		
Johnson Creek	Johnson Creek	SK-11-1-SK-11-2	1.2	Gradient: Low Confinement: Moderately Confined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Baumgard loam, 40 to 65 percent slopes (10), Baumgard-Pheeney complex, 40 to 65 percent slopes (12), Wilkeson silt loam, 5 to 20 percent slopes (123), Wilkeson silt loam, 20 to 40 percent slopes (124), Eld loam (31), Galvin silt loam, 0 to 5 percent slopes (37), Godfrey silty clay loam (41) Geologically sensitive area: No Bedrock age: Holocene; Eocene Lithology: alluvium; andesite flows	Reach may contain the following species: coho, sea-run cutthroat, resident cutthroat, harlequin duck, wood duck, osprey, Eastern wild turkey, Roosevelt and Rocky Mountain elk.	Reach may contain the following habitats and site specifics: Wetland and associated buffers (entire reach, including developed areas), Anadromous fish spawning and/or rearing (coho), Habitat (wood duck breeding), 100-year floodplain (narrow, typically within jurisdiction). The right bank is largely vegetated (forest/shrub) for extent, except for development downstream; left bank is similar upstream but with more substantial development downstream including mowed areas and buildings (residential surrounded by designated forest). Active forestry adjacent.	timber/forestl and, residential, undeveloped	LTF	not designated	Public access within the reach: roads (Johnson Creek Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (3 culverts, 0 barriers), dams: no, armoring: no, Facilities: roads: yes (1) , bridges: 1 (Johnson Creek Rd), railroads: no, marinas: no, utilities: yes (1 - powerline); Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Single non-culvert barrier (IF - insufficient flow/fall) present in reach; does not appear to affect mapped anadromous fish distribution.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Johnson Creek	Johnson Creek	SK-11-2-SK-11-3	n/a	Gradient: Low Confinement: Moderately Confined, Unconfined Habitat: Small Tributary, Seasonally Flooded Wetland Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Wilkeson silt loam, 5 to 20 percent slopes (123), Eld loam (31), Galvin silt loam, 0 to 5 percent slopes (37), Godfrey silty clay loam (41), Baldhill very stony sandy loam, 0 to 3 percent slopes (5), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Baumgard loam, 10 to 40 percent slopes (9) Geologically sensitive area: No Bedrock age: Holocene Lithology: alluvium	Reach may contain the following species: coho, sea-run cutthroat, resident cutthroat, wood duck, ospreyk.	Reach may contain the following habitats and site specifics: Wetland and associated buffers (entire reach except for uppermost, with 100-year floodplain defines jurisdiction), Anadromous fish spawning and/or rearing (coho), Habitat (wood duck breeding), 100-year floodplain (entire reach, with wetlands defines jurisdiction). The entire jurisdictional area is vegetated (forest/shrub wetland and buffer), active forestry and agriculture adjacent. Reach is comprised of associated wetlands and floodplain above the 20 CFS point.	timber/forestland	LTF	not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (1 - powerline); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Mima Creek	Mima Creek	BL-12-0-BL-12-1	0.3	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): No. Surface hydrology: Mima Creek flows into the Black River. Extensive associated wetlands. Extensive 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Godfrey silty clay loam (041), Maytown silt loam (064), Alderwood gravelly sandy loam, 3 to 15% (002). Geologically sensitive area: No. Bedrock age: Holocene; Eocene, lower to middle. Lithology: Alluvium; Basalt flows and flow breccias, Crescent Formation.	Reach may include the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, wood duck, harlequin duck.	Reach may include the following habitats and site specifics: Wetland and associated buffer (extensive both banks, left (east) bank channel only upstream of rail/trail grade), Anadromous fish spawning and/or rearing habitat (coho, winter steelhead), Habitat (wood duck breeding/nesting/foraging, harlequin duck breeding), 100-year floodplain (entire reach, extensive both banks, defines jurisdiction).	residential, agriculture, undeveloped	R 1/20	natural	Public access within the reach: trails (1 - Gate to Belmore trail - proposed)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Mima Creek	Mima Creek	BL-12-1-BL-12-2	2.31	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Baker Creek flows into Mima Creek at south end of reach. Three unnamed tributaries. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Maytown silt loam (064), Godfrey silty clay loam (041), Spanaway gravelly sandy loam, 0 to 3% slopes (110), Yelm fine sandy loam, 0 to 3% slopes (126), Yelm fine sandy loam, 3 to 15% slopes (127), Yelm fine sandy loam, 15 to 30% slopes (128), Raught silt loam, 30 to 65% slopes (094), Eld loam (031), Everett very gravelly sandy loam, 0 to 3% slopes (032). Geologically sensitive area: No. Bedrock age: Holocene; Pleistocene. Lithology: Alluvium; Alpine glacial outwash, pre-Fraser; Continental glacial drift, pre-Fraser; Continental glacial outwash, gravel, Fraser-age.	Reach may include the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, wood duck, harlequin duck.	Reach may include the following habitats and site specifics: Wetland and associated buffer, Anadromous fish spawning and/or rearing habitat (coho, winter steelhead), Oak (forest or woodland canopy (oak-conifer), habitat (conifer mixed), 100-year floodplain. Bank vegetation is continuous tree/shrub, mostly very narrow with agricultural/residential clearly landward, except for midreach where it widens.	undeveloped, agriculture, residential	R 1/20, RRR 1/5	natural, conservancy	Public access within the reach: road (Gate Rd SW & Capitol Forest Road)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (3 culverts, no barriers), dams: no, armoring: no, Facilities: roads: yes (2), bridges: yes (2 - Gate Rd, Capitol Forest Road), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Reach includes a mapped barrier (PD - not defined) - cannot visualize on aerial photo due to tree cover, does not affect mapped salmonid distribution.
Porter Creek	North Fork Porter Creek	NP-0-NP-1	0.03	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: North Porter Creek flows out of Thurston County. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Bunker gravelly silt loam, 30 to 65% slopes (018). Geologically sensitive area: No. Bedrock age: Eocene, lower to middle. Lithology: Basalt flows and flow breccias, Crescent Formation.	Reach may include the following species: resident cutthroat.	Reach may include the following habitats and site specifics: There are no wetlands, associated buffers, documented habitats, or 100-year floodplain in reach. The reach is in an area of active forestry (WA forestry board), entire jurisdictional area (all 400 ft) is forested buffer with adjacent clearcut.	undeveloped	LTF	not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: on; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no , contaminated sediments: no (if yes cite for what), shellfish harvest ratings: n/a	None noted	None noted	The reach is within Capitol Forest (government land), but there are no specific public access features.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Black River	Salmon Creek	BL-5-0-BL-5-1	0.56	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Salmon Creek flows into the Black River. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Semiahmoo muck (104), Norma silt loam (076), Alderwood gravelly sandy loam, 3 to 15% slopes (002), McKenna gravelly silt loam, 0 to 5% slopes (065), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, green heron, wood duck.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, associated with Black River wetland complex), Anadromous fish spawning and/or rearing habitat (coho, winter steelhead), Habitat (green heron nesting - downstream, wood duck breeding/nesting/foraging - downstream, waterfowl concentration - downstream), 100-year floodplain (entire reach, parallel to channel, may be mismapped - see note).	residential	R 1/20	natural, not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (2 - powerlines); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality.	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence). 100-year floodplain appears to be mismapped relative to channel, likely affects jurisdiction.
Black River	Salmon Creek	BL-5-1-BL-5-2	0.74	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetland. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: McKenna gravelly silt loam, 0 to 5% slopes (065), Norma silt loam (076), Everett very gravelly sandy loam, 3 to 15% slopes (033), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age.	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, Oregon spotted frog, Olympic mudminnow.	Reach may include the following habitats and site specifics: Anadromous fish spawning and/or rearing habitat (coho, winter steelhead), 100-year floodplain (entire reach, parallel to channel downstream, may be mismapped - see note). Entire stream corridor is vegetated except for clearing to banks under highwire powerlines, rail/trail grade, and adjacent residential and mining (logistics?) area.	residential, undeveloped, mining	R 1/20, R 1/10	not designated	Public access within the reach: trails (Gate to Belmore - proposed, bikeway - 1), roads (Littlerock Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (1 culvert, no barrier), dams: no, armoring: no , Facilities: roads: yes (1), bridges: yes (Salmon Creek), railroads: no, marinas: no, utilities: yes (2 - powerlines); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Mining related uses may alter hydrology and sediment processes due to loss of vegetative cover.	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	100-year floodplain appears to be mismapped relative to channel, likely affects jurisdiction.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Salmon Creek	Salmon Creek	BL-5-2-BL-5-3	1.14	Gradient: Low. Confinement: Moderately confined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): No. Surface hydrology: Extensive associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Norma fine sandy loam (075), Everett very gravelly sandy loam, 3 to 15% slopes (033), Mukilteo muck (069), Cagey loamy sand (020). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, gravel, Fraser-age; Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, mink, Oregon spotted frog, Olympic mudminnow.	Reach may include the following habitats and site specifics: Wetland and associated buffer (extensive left/east bank, defines jurisdiction), Anadromous fish spawning and/or rearing habitat (coho, winter steelhead), 100-year floodplain (entire reach, channel only, may be mismapped - see note). The entire reach is vegetated (both banks), primarily forest with shrub/emergent in places, downstream vegetation is extremely narrow with clearing for residential use and road adjacent.	residential, undeveloped, timber/forestland	R 1/10, RRR 1/5	not designated	Public access within the reach: trails (bikeway - 1), roads (Littlerock Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (1), bridges: 3 (at least, unmapped private crossings per aerial), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	100-year floodplain appears to be mismapped relative to channel, likely affects jurisdiction.
Salmon Creek	Salmon Creek	BL-5-3-BL-5-4	n/a	Gradient: N/A - reach is associated wetland upstream from 20 cfs point. Confinement: N/A - reach is associated wetland upstream from 20 cfs point. Habitat: N/A - reach is associated wetland upstream from 20 cfs point. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): No. Surface hydrology: Reach is associated wetland. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Norma fine sandy loam (075), Norma silt loam (076), Mukilteo muck (069), Cagey loamy sand (020). Geologically sensitive area: No. Bedrock age: Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, Oregon spotted frog, Olympic mudminnow, Mazama pocket gopher.	Reach may include the following habitats and site specifics: Wetland and associated buffer (wetland complex lobe comprises reach), Anadromous fish spawning and/or rearing habitat (coho, winter steelhead), 100-year floodplain (channel only, may be mismapped - see note). Entire jurisdiction is forested/shrub/emergent.	undeveloped, residential	R 1/10	not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	100-year floodplain appears to be mismapped relative to channel, likely affects jurisdiction.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Scatter Creek	CH-4-0-CH-4-1	2.28	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetlands. Extensive 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil names: Chehalis silt loam (026), Newberg fine sandy loam (071), Newberg loam (072), Yelm fine sandy loam, 0 to 3% slopes (126), Nisqually loamy fine sand, 3 to 15% slopes (074), McKenna gravelly silt loam, 0 to 5% slopes (065). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age.	Reach may include the following species: coho salmon, winter steelhead, sea-run cutthroat, resident cutthroat, mink, wood duck	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, primarily channel with large lob extending off left/south bank), Anadromous fish spawning and/or rearing (coho, winter steelhead), Habitats (wood duck breeding area), 100-year floodplain (both banks complex, left/south bank extends to Chehalis River). Vegetation is primarily shrub/herbaceous (majority agriculture, some residential/undeveloped), some trees in downstream area of reach.	undeveloped, agriculture, residential	LTA, RRR 1/5	conservancy, rural	Public access within the reach: roads (Independence Rd SW, James Rd SW, Jordan St SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (2 culverts, no barriers), dams: no, armoring: no , Facilities: roads: yes (3), bridges: yes (James Rd [culvert] mid-reach associated, per aerial private unmapped upstream), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: yes (Jack Wilmarth Triangle General Store in shoreline jurisdiction north of creek), shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Reach includes 1 water quality sampling gauge (stream gauge).
Scatter Creek	Scatter Creek	CH-4-10-CH-4-11	0.13	Gradient: Low Confinement: Moderately Confined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetland High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Cathcart gravelly loam, 15 to 35 percent slopes (22), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Melbourne silty clay loam, 5 to 20 percent slopes (66), Norma silt loam (76) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age	Reach may include the following species: sea-run cutthroat, resident cutthroat, wood duck, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffer (both banks entire reach, widens downstream (south)), Oak (habitat (conifer deciduous) - entire reach primarily left (east) bank, 100-year floodplain (both banks, widens downstream/south). Reach comprises single agricultural parcel (small reach outside of City), stream corridor partially vegetated with areas of clearing to banks.	agriculture, other	RRR 1/5	conservancy	Public access within the reach: roads (Morningside Dr SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (1), bridges: yes (Morningside Dr SE), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Jurisdiction extends to City past left (east) bank, description is for County features/area only.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Scatter Creek	CH-4-12-CH-4-13	0.3	Gradient: Low Confinement: Moderately Confined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associtated wetlands High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Cathcart gravelly loam, 3 to 15 percent slopes (21), Cathcart gravelly loam, 15 to 35 percent slopes (22), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Norma silt loam (76) Geologically sensitive area: No Bedrock age: Eocene, middle to upper; Holocene; Pleistocene Lithology: marine sedimentary rocks; alluvium; continental glacial outwash, gravel, Fraser-age	Reach may include the following species: sea-run cutthroat, resident cutthroat, wood duck, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffers (entire reach, both banks much of jurisdiction), Oak (forest or woodland canopy (oak-conifer, oak-dominant), habitat (conifer deciduous, dominant)) - mapped for most of reach, both banks, but tree vegetation is actually quite limited, 100-year floodplain (entire reach, both banks, widens downstream/south). Stream corridor is largely cleared (herbaceous/agricultural (pasture?)) with some trees/shrubs along banks.	agriculture, other, residential	RRR 1/5, UR 1/5	conservancy	Public access within the reach: roads (Fenton Ave W, unmapped private crossing per aerial)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (2 includes private drive), bridges: yes (McDuff Rd bridge), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	None
Scatter Creek	Scatter Creek	CH-4-13-CH-4-14	0.58	Gradient: Low Confinement: Moderately Confined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Cathcart gravelly loam, 3 to 15 percent slopes (21), Everett very gravelly sandy loam, 0 to 3 percent slopes (32), Everett very gravelly sandy loam, 15 to 30 percent slopes (34), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Norma silt loam (76) Geologically sensitive area: No Bedrock age: Pleistocene; Eocene, middle to upper; Holocene Lithology: continental glacial outwash, gravel, Fraser-age; marine sedimentary rocks; alluvium	Reach may include the following species: sea-run cutthroat, resident cutthroat, wood duck, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffers (entire channel, which is wide and includes complex in-water vegetation), Oak (forest or woodland canopy (oak-conifer), habitat (conifer deciduous)) - entire jurisdiction, 100-year floodplain (entire reach, relatively narrow, may be mismapped relative to channel). Undeveloped stream corridor entirely vegetated (shrub/forest) for all of jurisdiction, except at Old Highway 99 crossing.	undeveloped	UR 1/5	conservancy	Public access within the reach: trail (1 - bikeway), roads (Old Highway 99 SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (2 includes private drive), bridges: yes (Old Highway 99), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	None noted	Right (north) bank only, left (south) bank is in City jurisdiction. Description is for County only.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Scatter Creek	CH-4-14-CH-4-15	0.41	Gradient: Low Confinement: Moderately Confined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetland High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Everett very gravelly sandy loam, 15 to 30 percent slopes (34), McKenna gravelly silt loam, 0 to 5 percent slopes (65) Geologically sensitive area: No Bedrock age: Pleistocene; Holocene Lithology: continental glacial outwash, gravel, Fraser-age; alluvium	Reach may include the following species: sea-run cutthroat, resident cutthroat, wood duck, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, both banks, wide emergent/shrub dominated channel), Oak (forest or woodland canopy (oak-conifer, oak-dominant), habitat (conifer mixed, conifer deciduous, dominant)) - entire reach, primarily right (north) bank, 100-year floodplain (both banks, entire reach, uniform). Undeveloped land, left (south) bank jurisdiction may have been cleared at some point, although may be natural feature (very few trees/shrubs). Stream corridor entirely vegetated, right (north) bank trees/shrubs, in jurisdiction left (south) bank mostly emergent/shrub. In-stream and fringing vegetation - lack of trees may be natural feature.	undeveloped, residential	UR 1/5, RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	None noted	None noted	Agriculture occurs within jurisdiction, but appears to be far enough landward that it does not directly affect shoreline (bank) vegetation. Shrub/emergent bank vegetation may be natural condition.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Scatter Creek	CH-4-1-CH-4-2	2.65	Gradient: Low. Confinement: Unconfined. Habitat: Small Tributary; Seasonally Flooded. Steep slopes (>=40% slope): Yes, extremely small area. Potential landslide area (>=15% slope): Yes, small areas. Surface hydrology: Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil names: Yelm fine sandy loam, 0 to 3% slopes (126), McKenna gravelly silt loam, 0 to 5% slopes (065), Nisqually loamy fine sand, 3 to 15% slopes (074), Spanaway gravelly sandy loam, 0 to 3% slopes (071), Spanaway gravelly sandy loam, 3 to 15% slopes (072), Spanaway-Nisqually complex, 2 to 10% slopes (114), Everett very gravelly sandy loam, 0 to 3% slopes (065). Geologically sensitive area: No. Bedrock age: Holocene, Pleistocene, Oligocene-Eocene. Lithology: Alluvium; Continental glacial outwash, gravel, Fraser-age; Marine sedimentary rocks.	Reach may include the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, wood duck, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffer (both banks, entire reach), Anadromous fish spawning and/or rearing (coho, winter steelhead), Habitat (wood duck breeding area), Oak (oak forest or woodland canopy (oak-dominant, oak-conifer), oak habitat (dominant, conifer mixed, conifer deciduous) - both banks, most of reach, 100-year floodplain (both banks, complex downstream/west). There is a shrub/forested side channel present at Sargent Road. Shoreline vegetation is largely intact downstream (west) including lateral extent, but is very narrow/fragmented for most of the upstream area where adjacent use is residential/agriculture.	residential, undeveloped, agriculture, other, open space	RRR 1/5, RL 1/1	conservancy	Public access within the reach: roads (Hames Rd SW, Denmark St SW, Huntington St SW, Hilt St SW, 183rd Ave SW, Applegate St SW, Empire St SW, Sargent Rd SW, Highway 12/US 12), trails (2 bikeways)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: yes (5 culverts, 0 barriers), dams: no, armoring: no , Facilities: roads: yes (9 plus private roads), bridges: yes (4, James Road Bridge, US 12 Bridge, Township Road Bridge, Sargent Road bridge), railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Reach includes 2 water quality gauges (sample site).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Scatter Creek	CH-4-2-CH-4-3	1.11	Gradient: Low Confinement: Unconfined Habitat: Seasonally Flooded Wetland, Small Tributary, Lake/Pond Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway-Nisqually complex, 2 to 10 percent slopes (114), Everett very gravelly sandy loam, 0 to 3 percent slopes (32), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Prather silty clay loam, 8 to 20 percent slopes (87), Salkum silty clay loam, 15 to 30 percent slopes (99) Geologically sensitive area: No Bedrock age: Pleistocene; Eocene, middle to upper; Holocene Lithology: continental glacial drift, pre-Fraser; continental glacial outwash, gravel, Fraser-age; nearshore sedimentary rocks; alluvium.	Reach may include the following species: coho, sea-run cutthroat, resident cutthroat, wood duck, mink, Taylor's (whulge) checker-spot, Puget Blue, Valley silverspot, mardon skipper, and mazama (western) pocket gopher.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, both banks, extensive right (north) bank), Anadromous fish spawning and/or rearing (coho), Habitat (wood duck breeding area), Oak (oak forest or woodland canopy (oak-dominant, oak-conifer), oak habitat (dominant, conifer mixed, conifer deciduous)) - both banks, scattered entire reach), 100-year floodplain (entire reach/jurisdiction, both banks). Vegetation largely intact right (north) bank (shrub/tree), fragmented in residential areas left (south) bank with some clearly, intact closer to WDFW Scatter Creek preserve area; some in-water and adjacent emergent/shrub.	residential, undeveloped, timber/forestland, open space	RRR 1/5, R 1/20, PP	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (1 private road), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Scatter Creek	Scatter Creek	CH-4-3-CH-4-4	1.12	Gradient: Low Confinement: Unconfined Habitat: Small Tributary, Lake/Pond, Seasonally Flooded Wetland Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Spanaway-Nisqually complex, 2 to 10 percent slopes (114), Everson clay loam (36), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Salkum silty clay loam, 15 to 30 percent slopes (99) Geologically sensitive area: No Bedrock age: Pleistocene; Eocene, middle to upper; Holocene Lithology: continental glacial drift, pre-Fraser; continental glacial outwash, gravel, Fraser-age; nearshore sedimentary rocks; alluvium	Reach may include the following species: coho, sea-run cutthroat, resident cutthroat, wood duck, mink, Taylor's (whulge) checker-spot, Puget Blue, Valley silverspot, mardon skipper, and mazama (western) pocket gopher.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach, both banks, including tributary to north), Anadromous fish spawning and/or rearing (coho), Oak (forest or woodland canopy (oak-dominant, oak-conifer), habitat (dominant, conifer deciduous, conifer mixed)) - entire reach adjacent to creek, 100-year floodplain (entire reach and most jurisdiction adjacent to creek [but not tributary to north]). Intact vegetation (forest/scrub with large areas of emergent/shrub in broad channel) on both banks, active forestry to north (within jurisdiction), open grassland and trees to south.	open space, undeveloped, timber/forestland	PP, R 1/20	conservancy	WDFW Scatter Creek Wildlife Preserve.	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (within preserve), bridges: no, railroads: no, marinas: no, utilities: yes (powerline); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach is located with WDFW Scatter Creek Wildlife Preserve.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Scatter Creek	CH-4-4-CH-4-5	2.98	Gradient: Low Confinement: Unconfined Habitat: Seasonally Flooded Wetland, Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Spanaway-Nisqually complex, 2 to 10 percent slopes (114), Everett very gravelly sandy loam, 0 to 3 percent slopes (32), Everson clay loam (36), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Norma silt loam Geologically sensitive area: No Bedrock age: Pleistocene; Holocene Lithology: continental glacial outwash, gravel, Fraser-age; alluvium	Reach may include the following species: coho, sea-run cutthroat, resident cutthroat, wood duck, mink, western grey squirrel, Taylor's (whulge) checker-spot, Puget Blue, Valley silverspot, mardon skipper, Mazama pocket gopher	Reach may contain the following habitats and site specifics: Wetland and associated buffers (entire reach, both banks), Anadromous fish spawning and/or rearing (coho salmon, Oak (oak forest or woodland canopy (oak-dominant, oak-conifer), habitat (dominant, conifer deciduous, conifer mixed)) - entire reach, both banks, Grassland (native, semi-native grassland, unsurveyed grassland, includes lobe into WDFW preserve to west), 100-year floodplain (entire reach, both banks, largely defines jurisdiction). Both banks largely continuously vegetated (shrub/trees, some emergent), width varies.	open space, undeveloped, agriculture, residential, other, transportation, recreation	R 1/20, RRR 1/5, RCC, PP	conservancy	Public access within the reach: roads (Guava St SW, 180th St SW, Case Rd SW, I-5, Leitner Rd SW, Gibson Rd)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (6 plus private drives), bridges: yes (Case Rd bridge, Leitner Rd. Bridge, I-5 Crossing, Gibson Rd Bridge), railroads: yes, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Railroads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Reduction of channel and side channel habitat and rearing capacity. Railroads within the floodplain may result in reduced or altered floodplain, channel and side channel connectivity, water storage, and/or floodplain capacity.	None noted	Agriculture occurs within jurisdiction, but is far enough landward that it does not directly affect shoreline (bank) vegetation.
Scatter Creek	Scatter Creek	CH-4-5-CH-4-6	2.52	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Spanaway-Nisqually complex, 2 to 10 percent slopes (114), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Norma silt loam (76) Geologically sensitive area: No Bedrock age: Pleistocene; Eocene, middle to upper Lithology: continental glacial outwash, gravel, Fraser-age; nearshore sedimentary rocks	Reach may include the following species: coho, sea-run cutthroat, resident cutthroat, wood duck, mink, Mazama pocket gopher	Reach may contain the following habitats and site specifics: Wetlands and associated buffers (both banks, entire reach, primarily associated with river but widens upstream/east), Anadromous fish spawning and/or rearing (coho) Oak (forest or woodland canopy (oak-dominant, oak-conifer), habitat (dominant, conifer deciduous, conifer mixed)) - entire reach, both banks. Other: shrubland (potentially restorable to grassland), 100-year floodplain (both banks, defines majority of jurisdiction). Both banks have areas of fragmented/narrow vegetation, also wide channel that is vegetated with shrub/emergent and few trees; some banks with continuous vegetation (shrub/trees, some emergent), width varies, with areas of in-channel and fringing vegetation with continuous landward vegetation.	residential, agriculture, undeveloped, other, timber/forestl and, transportation	RRR 1/5, LTF	conservancy	Public access within the reach: roads (Old Highway 99 SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (1 culvert, no barriers), dams: no, armoring: no , Facilities: roads: yes (1 - private), bridges: yes (Old Highway 99, per aerial a number of unmapped crossing on private drives), railroads: no, marinas: no, utilities: yes (2 - powerlines); Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PHS shrubland potentially restorable to grassland in jurisdiction.	Reach includes water quality gauge (sample site). Agriculture occurs within jurisdiction, but is far enough landward that it does not directly affect shoreline (bank) vegetation.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Scatter Creek	CH-4-6-CH-4-7	1.5	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway-Nisqually complex, 2 to 10 percent slopes (114), Everett very gravelly sandy loam, 0 to 3 percent slopes (32), Godfrey silty clay loam (41), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Melbourne silty clay loam, 40 to 65 percent slopes (68) Geologically sensitive area: No Bedrock age: Pleistocene; Eocene, middle to upper Lithology: continental glacial outwash, gravel, Fraser-age; nearshore sedimentary rocks	Reach may include the following species: coho, sea-run cutthroat, resident cutthroat, wood duck, mink, Taylor's (whulge) checkerspot, mardon skipper.	Reach may contain the following habitats and site specifics: Wetland and buffer (entire reach, both banks, widens midreach): Anadromous fish spawning and/or rearing (coho), Oak (forest or woodland canopy (oak-dominant, oak-conifer), habitat (dominant, conifer deciduous)) - both banks, central and downstream/west, 100-year floodplain (entire reach, both banks, generally wider downstream/west). Bank vegetation (shrub/tree) largely continuous, but very narrow in places, with active agriculture immediately adjacent in places.	agriculture, timber/forestland, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (1 - private), bridges: yes (1 - unmapped crossing per aerial), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Parcel in conservation easement for native prairie conservation.
Scatter Creek	Scatter Creek	CH-4-7-CH-4-8	2.3	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Spanaway-Nisqually complex, 2 to 10 percent slopes (114), Godfrey silty clay loam (41), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Melbourne silty clay loam, 40 to 65 percent slopes (68), Norma silt loam (76) Geologically sensitive area: No Bedrock age: Pleistocene; Holocene; Eocene, middle to upper Lithology: continental glacial outwash, gravel, Fraser-age; alluvium; nearshore sedimentary rocks	Reach may include the following species: sea-run cutthroat, resident cutthroat, wood duck, mink, Taylor's (whulge) checkerspot, mardon skipper, western (Mazama) pocket gopher.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, both banks, also includes slough/side channel south/downstream and wider area at upstream/north end), Oak (forest or woodland canopy (oak-dominant, oak-conifer), habitat (dominant, conifer deciduous, conifer mixed)) - entire reach, extensive downstream/south both banks, extensive right bank (west) upstream, 100-year floodplain (typically both banks and narrow, splits in southern/downstream area where it includes slough/side channel). Stream corridor mostly vegetated banks (shrub/emergent, some trees), backside of residential lots or agricultural areas, there appears to be a slough or side channel in downstream (south) end of reach.	residential, agriculture, other, undeveloped	RRR 1/5	conservancy	Public access within the reach: roads (Mima Acres Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (4 includes private), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity.	None noted	Agriculture occurs within jurisdiction, but is far enough landward that it does not directly affect shoreline (bank) vegetation.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Scatter Creek	CH-4-8-CH-4-9	0.22	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Cathcart gravelly loam, 15 to 35 percent slopes (22), Norma silt loam (76) Geologically sensitive area: No Bedrock age: Pleistocene Lithology: continental glacial outwash, gravel, Fraser-age	Reach may include the following species: sea-run cutthroat, resident cutthroat, wood duck, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach both banks, extensive left/east), Oak (forest or woodland canopy (oak-conifer), habitat (conifer mixed)) - entire reach, both banks except for left/east at upstream end, 100-year floodplain (entire reach, both banks, extensive left/east). Stream corridor is mostly vegetated (tree/shrub), residential clearing (including buildings) and other upland clearing within jurisdiction.	undeveloped, residential, other	RRR 1/5	conservancy	Public access within the reach: roads (Old Highway 99), trails (1 - bikeway)	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (1), bridges: yes (Old Highway 99 upstream/north), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Scatter Creek, associated jurisdiction	CH-4-15-CH-4-16	n/a	Gradient: Low Confinement: Confined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Everett very gravelly sandy loam, 0 to 3 percent slopes (32), McKenna gravelly silt loam, 0 to 5 percent slopes (65) Geologically sensitive area: No Bedrock age: Pleistocene; Miocene-Oligocene; Holocene Lithology: continental glacial outwash, gravel, Fraser-age; gabbro; alluvium	Reach may include the following species: sea-run cutthroat, resident cutthroat, wood duck, mink, reticulate sculpin, Olympic mudminnow	Reach may include the following habitats and site specifics: Wetland and associated buffer (both banks, primarily define jurisdiction, includes cleared agriculture areas), Oak (forest or woodland canopy (oak-dominant), habitat (dominant)) - limited to downstream confluence are except for one small area on left (south) bank, 100-year floodplain (largely within wetland areas, relatively uniform, constricted at crossings). Stream corridor largely vegetated (trees/shrubs), very narrow or fragmented in residential areas (mowed/cleared landward); entire jurisdiction vegetated in undeveloped areas.	undeveloped, residential, agriculture	UR 1/5, RRR 1/5, SFES (in City)	conservancy, majority not designated	Public access within the reach: roads (Old Military Rd SE, Wherrett St N [in city])	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (2), bridges: yes (Military Rd), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Left (south) bank includes an area of UGA and small area within City jurisdiction (including in description per County request - area largely undeveloped/agriculture). Reach is associated jurisdiction above 20 CFS point.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Scatter Creek	Scatter Creek, associated jurisdiction	CH-4-15-CH-4-18	n/a	Gradient: Low Confinement: Confined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): No Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Eld loam (31), McKenna gravelly silt loam, 0 to 5 percent slopes (65) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age	Reach may include the following species: sea-run cutthroat, resident cutthroat, mink, wood duck, reticulate sculpin, Olympic mudminnow	Reach may include the following habitats and site specifics: Wetland and associated buffer (wide downstream at confluence, narrow and defined by channel for most of central reach, wider at left/west of Vantine Rd. SE at the upper extent of jurisdiction), oak (forest or woodland canopy (oak-dominant, oak-conifer), habitat (dominant, conifer deciduous, conifer mixed) - both banks upstream/downstream ends, mapped fringe to north occasionally enters right bank jurisdiction, 100-year floodplain (both banks, relatively narrow, ends downstream of end of jurisdiction). Vegetation (shrub/tree) is very narrow and fragmented/modified; substantially less disturbance at upstream and downstream ends with clearing for agriculture/residential mid-reach. No 200-ft zone (upstream of flow requirement), jurisdiction is all flood/wetland.	undeveloped, residential, agriculture	UR 1/5, RRR 1/5	conservancy, majority not designated	Public access within the reach: roads (Vantine Rd SE, Old Military Rd SE,)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (2), bridges: (1 - unmapped private crossing), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Reach includes water quality gauge (rain gauge). No 200-ft zone (upstream of flow requirement), jurisdiction is all flood/wetland.
Scatter Creek	Scatter Creek, associated jurisdiction	CH-4-16-CH-4-17	n/a	Gradient: Low Confinement: Confined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): No Surface hydrology: Associated wetland, 100-year floodplain High groundwater hazard: Yes Limited groundwater concern: No Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Eld loam (31), Godfrey silty clay loam (41), Baldhill very stony sandy loam, 0 to 3 percent slopes (5), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Norma silt loam (76) Geologically sensitive area: No Bedrock age: Pleistocene; Holocene Lithology: continental glacial outwash, gravel, Fraser-age; alluvium	Reach may include the following species: sea-run cutthroat, resident cutthroat, wood duck, mink.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, largely defines jurisdiction, very wide from left (east) bank at upper extent), Oak (forest or woodland canopy (oak-conifer, urban oak), oak habitat (conifer deciduous, dominant)) - left (south) bank only upstream area of reach, excepting small mapped polygons, 100-year floodplain (both banks, entire reach, within wetland areas). Land primarily residential with agricultural and undeveloped as well. Corridor largely vegetated, mostly emergent/shrub, some areas cleared for agricultural purposes but otherwise unclear whether the lack of trees is natural (wetland complex) or due to clearing. Clear agricultural modification at upstream end.	undeveloped, residential, agriculture	RRR 1/5	not designated	Public access within the reach: trail (1 - bikeway), roads (Mull St SE, Highway 507)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: yes (1), bridges: yes (Mull Rd), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Reach is associated jurisdiction above 20 cfs point, channel narrows dramatically.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Sherman Creek	Sherman Creek	SH-0-SH-1	1.42	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Sherman Creek flows into Cedar Creek. Lost Valley Creek flows into Sherman Creek at upstream end of reach. Five unnamed tributaries. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Eld loam (031), Raught silt loam, 5 to 30% slopes (093), Raught silt loam, 30 to 65% slopes (094), Olympia silt loam, 20 to 40% slopes (078). Geologically sensitive area: No. Bedrock age: Eocene, lower to middle. Lithology: Basalt flows and flow breccias, Crescent Formation.	Reach may include the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (right/west only, single small polygon), Anadromous fish spawning and/or rearing (fall chinook, coho, winter steelhead). Downstream area, both banks vegetated (trees/shrubs, except for road) and recovering areas landward (new forest growth). Upstream area, both banks vegetated (trees/shrubs), very narrow (1-2 trees) in places with recent clear cuts adjacent both banks. Active forestry (WA Forestry Board).	undeveloped, timber/forest land	LTF	conservancy	Public access within the reach: roads (Capitol Forest Road (2)), Parks/Gov't Land (Capitol Forest)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (2), bridges: no, railroads: no, marinas: no, utilities: on; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no , contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	While roads exist in shoreline jurisdiction, they do not occur in wetland areas (no 100-year floodplain in this reach).
Sherman Creek	Sherman Creek	SH-1-SH-2	1.89	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Seven unnamed tributaries. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Eld loam (031), Raught silt loam, 5 to 30% slopes (093), Olympia silt loam, 20 to 40% slopes (078). Geologically sensitive area: No. Bedrock age: Eocene, lower to middle. Lithology: Basalt flows and flow breccias, Crescent Formation.	Reach may include the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat.	Reach may contain the following habitats and site specifics: Wetland and associated buffers (1 small polygon each bank in upstream area), Anadromous fish spawning and/or rearing (fall chinook, coho, winter steelhead). Corridor entirely vegetated (shrub/tree) excepting roads, no active forestry in jurisdiction, though replanted/recovery areas are adjacent to but outside of it.	undeveloped, timber/forest land	LTF	conservancy	Public access within the reach: roads (Capitol Forest Road (2)), Parks/Gov't Land (Capitol Forest)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no , dams: no, armoring: no, Facilities: roads: yes (2), bridges: no, railroads: no, marinas: no, utilities: on; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no , contaminated sediments: no , shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	While roads exist in shoreline jurisdiction, they do not occur in wetland areas (no 100-year floodplain in this reach).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Skookum chuck	Skookumchuck River	SK-0-SK-1	4.81	Gradient: Low Confinement: Unconfined, Moderately Confined Habitat: Large Tributary, Side Channel, Side Channel Slough Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: Yes Soil names: Shalcar variant muck (106), Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Centralia silt loam, 8 to 15 percent slopes (23), Centralia silt loam, 15 to 30 percent slopes (24), Centralia silt loam, 30 to 60 percent slopes (25), Chehalis silt loam (26), Everett very gravelly sandy loam, 0 to 3 percent slopes (32), Galvin silt loam, 0 to 5 percent slopes (37), Godfrey silty clay loam (41), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Newberg fine sandy loam (71), Newberg loam (72), Norma silt loam (76), Pits, gravel (85), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Eocene, middle to upper; Pleistocene Lithology: alluvium; nearshore sedimentary rocks; mass-wasting deposits, mostly landslides; continental glacial outwash, gravel, Fraser-age; continental glacial drift, pre-Fraser	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach for river, also includes a number of smaller areas on both banks scattered throughout), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding entire reach both banks, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd), primarily upstream left/south bank), 100-year floodplain (entire reach, both banks, relatively wide/defines jurisdiction). Oxbow and other remnant channels exist. Shorelines vegetation is present for most of reach (trees/shrubs), very narrow or fragmented in places where residential or agricultural clearing exists.	undeveloped, timber/forestl and, residential, agriculture, other, utilities, commercial, transportation	RRR 1/5, R 1/20	conservancy	Public access within reach includes: trails (1 - bikeway), roads (Bucoda Highway SE/SR 507, Grade St SE, Conner Rd SE, Troy Dr SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (2 culverts, 1 barriers (on tributary)), dams: no, armoring: no (none mapped, cannot clearly see armoring on aerials but it may exists where land use is adjacent to eroding banks and at crossings), Facilities: roads: yes (4), bridges: yes (2 - O'connor [sic], unnamed at Bucoda Highway/SR 507) , railroads: yes (1), marinas: no, utilities: yes (2 - powerlines); Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes water quality gauges (2 - sample site/stream gauge, USGS gauge).
Skookum chuck	Skookumchuck River	SK-1-SK-2	0.33	Gradient: Low Confinement: Moderately Confined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: No Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Spanaway gravelly sandy loam, 3 to 15 percent slopes (111), Centralia silt loam, 8 to 15 percent slopes (23), Centralia silt loam, 15 to 30 percent slopes (24), Centralia silt loam, 30 to 60 percent slopes (25), Chehalis silt loam (26) Geologically sensitive area: No Bedrock age: Holocene; Eocene, middle	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, left/south bank includes areas landward of river and drainages), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding both banks, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd) primarily left/south bank), 100-year floodplain (right/north bank extends into Bucoda). Right (north) bank agricultural, left (south) bank active forestry. Right (north) bank very	timber/forestl and, agriculture	LTF, RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (1 - powerlines, unmapped per aerials); Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				to upper Lithology: alluvium; nearshore sedimentary rocks		narrow/fragmented band of trees with agriculture landward; left (south) bank forested for entire jurisdictional area.								
Skookum chuck	Skookumchuck River	SK-3-SK-4	0.8	Gradient: Low Confinement: Unconfined Habitat: Side Channel Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Chehalis silt loam (26), Godfrey silty clay loam (41), Melbourne silty clay loam, 5 to 20 percent slopes (66), Newberg fine sandy loam (71), Prather silty clay loam, 8 to 20 percent slopes (87), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Eocene, middle to upper Lithology: alluvium; nearshore sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and sites specifics: Wetland and associated buffer (entire reach; extends landward in downstream (south) and some areas of central/upstream (north) reach), Anadromous fish spawning and/or rearing habitat (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding - entire reach, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd) - entire reach), Oak (forest or woodland canopy (oak-conifer), oak habitat (conifer deciduous)) - central reach, 100-year floodplain (entire reach, extends landward almost to Ohop Rd SE). Land is primarily undeveloped or residential associated with undeveloped. Shoreline vegetation largely continuous (tree/shrub), narrow for most of reach. Vegetation in remnant oxbow-type channels.	residential, undeveloped	RRR 1/5	conservancy	Public access within reach includes: roads (Ohop Rd SE).	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no (none mapped, cannot clearly see armoring on aerials but it may exist where land use is adjacent to eroding banks), Facilities: roads: yes, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity.	None noted	Left (east) bank only, right (west) bank is City of Bucoda. The UGA mapped boundary and the current location of the river are not aligned. Despite the mapped location of the UGA line, Thurston County's jurisdiction begins on the left bank (east) of the river.
Skookum chuck	Skookumchuck River	SK-4-SK-5	0.89	Gradient: Low Confinement: Unconfined Habitat: Large Tributary, Side Channel Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Chehalis silt loam (26), McKenna gravelly silt loam, 0 to 5 percent slopes (65), Melbourne silty clay loam, 5 to 20 percent slopes (66), Melbourne silty clay loam, 20 to 40 percent slopes (67), Newberg fine sandy loam (71), Newberg loam (72), Norma silt loam (76) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene; Eocene, middle to upper Lithology: alluvium; mass-wasting	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach both banks, more extensive upstream/north reach at large bend), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding - entire reach both banks, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd) - areas of left/east bank only), Oak (forest or woodland canopy (oak-conifer), oak habitat (conifer deciduous, conifer mixed) - entre reach, both banks, continuous in downstream/south areas), 100-year floodplain (entire	timber/forestland, agriculture	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1 - private), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				deposits, mostly landslides; continental glacial outwash, gravel, Fraser-age; nearshore sedimentary rocks		reach, both banks, defines jurisdiction for most of reach). Depositional areas at some bends within the river. Shoreline vegetation largely continuous tree/shrub with areas emergent/herbaceous, except in agricultural area where it appears to have been cleared to banks in places.								
Skookum chuck	Skookumchuck River	SK-5-SK-6	0.46	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: Yes Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Chehalis silt loam (26), Godfrey silty clay loam (41), Indianola loamy sand, 0 to 3 percent slopes (46), Melbourne silty clay loam, 5 to 20 percent slopes (66), Melbourne silty clay loam, 20 to 40 percent slopes (67), Newberg fine sandy loam (71), Nisqually loamy fine sand, 3 to 15 percent slopes (74), Prather silty clay loam, 8 to 20 percent slopes (87), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene; Eocene, middle to upper Lithology: alluvium; continental glacial outwash, gravel, Fraser-age; nearshore sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and sites specifics: Wetland and associated buffer (entire reach, larger areas right/north bank downstream and left/south bank upstream)), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding - primarily right/north bank entire reach, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd) entire reach both banks), Oak forest or woodland canopy (oak-conifer), oak habitat (conifer deciduous) - right bank upstream small area), 100-year floodplain (both banks, right/north bank extensive, defines jurisdiction). Depositional areas and island/side channel within river. Shoreline vegetation (trees/shrubs) is largely intact on left (west) bank, right bank is cleared or narrow/fragmented in areas of agricultural use cleared to bank.	timber/forestland, agriculture	RRR 1/5, LTA	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Skookum chuck	Skookumchuck River	SK-6-SK-7	0.85	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes Limited groundwater concern: Yes Hydric soils: Yes Soil names: Cagey loamy sand (20), Chehalis silt loam (26), Godfrey silty clay loam (41), Indianola loamy sand, 0 to 3 percent slopes (46), Melbourne	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffers (entire reach, right/north bank mostly river, left/south bank includes drainages and adjacent areas throughout), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding entire reach primarily right/north bank, Roosevelt and Rocky Mountain elk	timber/forestland, agriculture	LTA, LTF	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				silty clay loam, 20 to 40 percent slopes (67), Melbourne silty clay loam, 40 to 65 percent slopes (68), Newberg fine sandy loam (71) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene; Eocene, middle to upper Lithology: alluvium; continental glacial outwash, gravel, Fraser-age; nearshore sedimentary rocks		wintering (Centralia mine herd) entire reach), 100-year floodplain (entire reach, both banks, extensive/complex right/north bank). There are depositional areas within river. Shoreline vegetation is largely intact forest (left bank) or entirely modified and cleared to bank for agriculture (right bank).								
Skookum chuck	Skookumchuck River	SK-7-SK-8	3	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: No Soil names: Spanaway gravelly sandy loam, 0 to 3 percent slopes (110), Chehalis silt loam (26), Everett very gravelly sandy loam, 0 to 3 percent slopes (32), Godfrey silty clay loam (41), Baldhill very stony sandy loam, 0 to 3 percent slopes (5), Newberg fine sandy loam (71), Newberg loam (72) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene; Eocene, middle to upper Lithology: alluvium; continental glacial outwash, gravel, Fraser-age; nearshore sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, osprey, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, extensive both banks (esp. right/north) midreach), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding - entire reach both banks, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd) - entire reach, primarily left/south bank), Oak (forest or woodland canopy (oak-conifer, oak-dominant), oak habitat (conifer deciduous, dominant)) - both banks, largely central reach with some areas at upstream/east end), 100-year floodplain (entire reach, both banks, extensive/complex (jurisdiction) right (north) bank). There are depositional areas in river and remnant oxbows (some vegetated, others with standing water) to north within jurisdiction. Shoreline vegetation (tree/shrub) is narrow, fragmented in areas, with clearing in jurisdiction for agricultural and residential uses.	agriculture, residential, undeveloped, timber/forestland	LTA, RRR 1/5	conservancy	Public access within reach includes: roads (Skookumchuck Rd SE, Goebel Rd SE).	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (6 culverts, 3 barriers - barriers on tributary drainage) dams: no, armoring: no (none mapped, cannot clearly see armoring on aerials but it may exists where land use is adjacent to eroding banks and at crossings), Facilities: roads: yes (2 plus private drives), bridges: yes (4 - Ismay Bridge, Skookumchuck Culverts, Goebel Bridge, per aerial, unmapped private bridge mid-reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes water quality gauge (sampling site).
Skookum chuck	Skookumchuck River	SK-8-SK-9	1.36	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, both banks, in most areas extends landward from river), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck	undeveloped, timber/forestland, residential, undeveloped	LTA, RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no (none mapped, cannot clearly see armoring on aerials but it may exists where land use is adjacent to eroding banks and at crossings), Facilities: roads: yes (2 private drives), bridges: yes (1 - unmapped private crossing	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat	None noted	There is a mine located on right/north bank, including activities and drives within jurisdiction.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				Soil names: Chehalis silt loam (26), Galvin silt loam, 0 to 5 percent slopes (37), Baldhill very stony sandy loam, 0 to 3 percent slopes (5), Newberg fine sandy loam (71), Newberg loam (72), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Eocene; Eocene, middle to upper; Pleistocene Lithology: alluvium; andesite flows; nearshore sedimentary rocks; continental glacial outwash, gravel, Fraser-age		breeding - entire reach both banks, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd) - entire reach, primarily left/south bank), Oak (forest or woodland canopy (oak-conifer), oak habitat (conifer deciduous)) - downstream/west areas left/south bank; upstream/east areas right/east bank, 100-year floodplain (both banks, entire jurisdiction, extensive to south midreach and downstream, extensive to east upstream). There are depositional areas in river. Shorelines are largely vegetated on both banks (trees/shrubs), with some fragmentation on the left/south bank. Clearing exists in jurisdiction for agriculture and residential uses.					upstream), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Mining related uses may alter hydrology and sediment processes due to loss of vegetative cover. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.		
Skookum chuck	Skookumchuck River	SK-9-SK-10	0.45	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): No Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Chehalis silt loam (26), Newberg fine sandy loam (71), Riverwash (95) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, both banks, extends landward in many areas with adjacent vegetation), Anadromous fish spawning and/or rearing habitat (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding - entire reach both banks, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd) - downstream reach area, primarily left/south bank), Oak (forest or woodland canopy (oak-conifer), oak habitat (conifer deciduous)) - central reach, both banks, also left/south bank away from river in jurisdiction), 100-year floodplain (entire reach, both banks, more extensive landward inside each of the 2 river bends where defines jurisdiction). Shoreline vegetation (tree/shrub) is largely intact on banks with some clearing behind (left bank), right bank is fragmented shrub/tree with residential clearing landward and to banks in places.	residential, undeveloped	RRR 1/5, RL 1/1	conservancy	Public access within reach includes: roads (Steelhead Dr SE, Trout Ct SE).	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (2), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Skookum chuck	Skookumchuck River	SK-10-SK-11	0.12	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Chehalis silt loam (26), Godfrey silty clay loam (41) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene; Eocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age; andesite flows	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck.	Reach may include the following habitats and site specifics: Wetland and associated buffer (both banks, entire reach, left/west primarily river, right/east extends up tributary drainages), Anadromous fish spawning and/or rearing habitat (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding - entire reach both banks, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd) - left/west bank landward only), 100-year floodplain (entire reach, extensive both banks and up Johnson Creek drainage). Vegetation (forest) largely intact right bank for entire jurisdiction (road), narrow/fragmented left bank with residential clearing, buildings, and roads.	residential, undeveloped	RRR 1/5, RL 1/1	conservancy	Public access within reach includes: roads (Steelhead Dr SE).	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (1 culvert, no barrier), dams: no, armoring: no, Facilities: roads: yes (1), bridges: yes (unmapped per aerial midreach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization.
Johnson Creek	Skookumchuck River	SK-11-SK-12	0.16	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: Yes Soil names: Chehalis silt loam (26), Godfrey silty clay loam (41), Baldhill very stony sandy loam, 0 to 3 percent slopes (5), Baldhill very stony sandy loam, 3 to 15 percent slopes (6) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, both banks, primarily river except Johnson Creek drainage), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding - entire reach, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd) - both banks upstream/south), 100-year floodplain (entire reach, extensive left and right except for at upstream/south end adjacent to bridge). Narrow band of vegetation (trees/shrubs) intact both banks with clearing (residential/possibly agriculture or just herbaceous) behind.	undeveloped, residential, utility	RRR 1/5, RL 1/1, LTA	conservancy	Public access within reach includes: roads (Steelhead Dr SE, Skookumchuck Rd SE).	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (2), bridges: yes (2 - Skookumchuck Bridge, unmapped per aerial midreach), railroads: no, marinas: no, utilities: yes (1 - powerline); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization.
Thompson Creek	Skookumchuck River	SK-12-SK-13	1.38	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and	Reach may include the following habitats and site specifics: Wetland and associated buffers (entire reach, both banks), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat	undeveloped, residential, timber/forestland, other	RL 1/1, RRR 1/5, LTA	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: yes (4 - fuel, gasline, fiber optic, powerline); Adjacent land uses: agriculture: yes, aquaculture:	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and	None noted	Features noted without digitized polygons, may not exactly line up with final digitization.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				Limited groundwater concern: Yes Hydric soils: Yes Soil names: Scamman silty clay loam, 5 to 20 percent slopes (101), Centralia silt loam, 15 to 30 percent slopes (24), Chehalis silt loam (26), Baldhill very stony sandy loam, 0 to 3 percent slopes (5), Melbourne silty clay loam, 5 to 20 percent slopes (66), Newberg fine sandy loam (71), Newberg loam (72) Geologically sensitive area: No Bedrock age: Holocene; Eocene, middle to upper; Pleistocene Lithology: alluvium; nearshore sedimentary rocks; alpine glacial outwash, pre-Fraser	Rocky Mountain elk.	(harlequin duck breeding - entire reach, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd) - entire reach), Oak (habitat (conifer deciduous)) - small area right/east bank downstream), 100-year floodplain (entire reach, extends to Thompson Creek downstream left/west bank, typically greater extent/complexity upstream right/east bank). Reach includes depositional areas and islands/side channels in river. Bank vegetation largely intact shrub/tree, cleared to bank in places and behind on right bank (agriculture), minimal clearing behind in jurisdiction on left bank, clearing under highwire utilities.					no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.		
Thompson Creek	Skookumchuck River	SK-13-SK-14	1.03	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetland High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Scamman silty clay loam, 5 to 20 percent slopes (101), Centralia silt loam, 15 to 30 percent slopes (24), Chehalis silt loam (26), Godfrey silty clay loam (41), Melbourne silty clay loam, 5 to 20 percent slopes (66), Melbourne silty clay loam, 40 to 65 percent slopes (68), Newberg fine sandy loam (71), Newberg loam (72) Geologically sensitive area: No Bedrock age: Holocene; Eocene, middle to upper Lithology: alluvium; nearshore sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, wider downstream/east and left/south bank at bend mid-reach), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding - entire reach, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd)/Skookumchuck elk area [upstream/east only] - entire reach), 100-year floodplain (both banks, more right/north bank landward extent at upstream and downstream ends). There are some depositional areas in the river. Left bank vegetation largely intact (forest), right bank intact in narrow band with clearing for agriculture behind.	open space, timber/forestland, undeveloped	LTF, LTA	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Skookumchuck River	SK-14-SK-15	0.43	Gradient: Low Confinement: Unconfined Habitat: Large Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Baumgard-Pheeney complex, 40 to 65 percent slopes (12), Wilkeson silt loam, 20 to 40 percent slopes (124), Chehalis silt loam (26), Melbourne silty clay loam, 5 to 20 percent slopes (66) Geologically sensitive area: No Bedrock age: Holocene; Eocene, middle to upper Lithology: alluvium; nearshore sedimentary rocks	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, eastern wild turkey, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, typically more extensive left/south bank), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding - entire reach), Roosevelt and Rocky Mountain elk wintering (Centralia mine herd)/Skookumchuck elk area - entire reach), 100-year floodplain (entire reach, more extensive left/east bank). There are depositional areas in river. Right bank vegetation largely intact (tree, shrub assemblage, some emergent) for entire jurisdiction; left bank same, narrow in places, with some clearing behind.	open space, residential, timber/forestland	LTA, RRR 1/5	conservancy	Public access within the reach: launches (WDFW Skookumchuck River Water Access Site), roads (Skookumchuck Rd SE)	Modifications: piers/docks/boat ramps: yes (WDFW Skookumchuck Water Access Site launch), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (2 includes unmapped private per aerial), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	WDFW is not mapped in GIS, but identified per parcel information and WDFW Water Access Site web information.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Skookumchuck River	SK-15-SK-16	1.26	Gradient: Low Confinement: Unconfined, Moderately Confined, Confined Habitat: Large Tributary, Side Channel, Small Tributary, Lake/Pond Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: No Soil names: Baumgard-Pheeney complex, 40 to 65 percent slopes (12), Wilkeson silt loam, 5 to 20 percent slopes (123), Wilkeson silt loam, 20 to 40 percent slopes (124), Xerorthents, 0 to 5 percent slopes (125), Chehalis silt loam (26), Pilchuck loamy sand (84), Baumgard loam, 10 to 40 percent slopes (9), Rock outcrop-Pheeney complex, 40 to 90 percent slopes (96) Geologically sensitive area: No Bedrock age: Holocene; Eocene Lithology: alluvium; andesite flows	Reach may include the following species: fall chinook, spring chinook, winter steelhead, sea-run cutthroat, coho, resident cutthroat, harlequin duck, eastern wild turkey, Roosevelt and Rocky Mountain elk.	Reach may include the following habitats and sites specifics: Wetland and associated buffer (below dam infrastructure includes almost entire right/north bank to road and areas of left bank, particularly inside river bends), Anadromous fish spawning and/or rearing (fall chinook, spring chinook, winter steelhead), Habitat (harlequin duck breeding - entire reach, Roosevelt and Rocky Mountain elk wintering (Centralia mine herd)/Skookumchuck elk area - entire reach), 100-year floodplain (entire reach, right/north bank bounded by road and dam infrastructure, left/south bank much wider extent). There are depositional areas in river and a slough/side channel area. The Skookumchuck Dam outlet is in this reach, there appears to be placed coarser substrate (quarry spalls/riprap?) instream at the outlet. The reach includes entire spillway below dam. Vegetation is largely intact both banks (trees/shrubs/emergent) with some clearing on right bank for roads, hatchery, and dam infrastructure (mowed vegetation).	open space, commercial	LTA, RRR 1/5	conservancy	Public access within the reach: roads (Skookumchuck Rd SE)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (2 culverts, 1 barrier), dams: no, armoring: yes (placed in-stream material at base of spillway), Facilities: roads: yes (3 includes unmapped private drives per aerial), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species. Dams alter hydrologic regimes. Impacts may include: periodic low flows and/or flooding, areas of high erosion, and limited ability to maintain flows necessary for habitat function. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity.	None noted	Reach includes water quality gauge (USGS gauge). Reach includes Skookumchuck Dam Rearing Pond (WDFW/City of Tacoma), also a DOE permit site (Skookumchuck Dam Rearing Pond). The mapped barrier (PCU - not defined, assume culvert) likely Skookumchuck Rd tributary crossing, slightly off-set in aerials. Much of the reach is dam and related infrastructure.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Skookumchuck River	SK-17-SK-18	1.15	Gradient: Low, Steep Confinement: Unconfined, Confined Habitat: Small Tributary, Lake/Pond Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetland. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: No Soil names: Baumgard loam, 40 to 65 percent slopes (10), Baumgard-Pheeney complex, 40 to 65 percent slopes (12), Chehalis silt loam (26), Pheeney-Rock outcrop complex, 65 to 90 percent slopes (83), Baumgard loam, 10 to 40 percent slopes (9), Rock outcrop-Pheeney complex, 40 to 90 percent slopes (96) Geologically sensitive area: No Bedrock age: Eocene; Holocene; Miocene-Oligocene Lithology: andesite flows; alluvium; gabbro	Reach may include the following species: winter steelhead, resident cutthroat, rainbow trout, harlequin duck, bald eagle.	Reach may include the following habitats and site specifics: Wetland and associated buffer (entire reach, adjacent areas in central reach both banks), Anadromous fish spawning and/or rearing (winter steelhead), Habitat (harlequin duck breeding - entire reach), 100-year floodplain (entire reach, river only, appears to be mis-mapped - see note). The reach includes coarser substrate downstream (near lake), with finer depositional areas across channel upstream. A an IF (insufficient flow/falls) non-culvert barrier exists mid-reach. The reach is entirely forested, near active forestry but does not appear to include shoreline jurisdiction.	timber/forestland	LTF	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes mapped non-culvert barrier (IF), instream flow/falls, does not appear to affect fish distribution. 100-year floodplain defines some channel, not extensive, appears to be slightly mis-mapped (this affects mapped jurisdiction).
Thompson Creek	Skookumchuck River	SK-18-SK-19	3.73	Gradient: Low, Moderate Confinement: Confined Habitat: Small Tributary, Side Channel Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: No Soil names: Baumgard loam, 40 to 65 percent slopes (10), Baumgard-Pheeney complex, 40 to 65 percent slopes (12), Wilkeson silt loam, 20 to 40 percent slopes (124), Pheeney-Baumgard complex, 30 to 65 percent slopes (81), Pheeney-Rock outcrop complex, 40 to 65 percent slopes (82), Pheeney-Rock outcrop complex, 65 to 90 percent slopes (83), Baumgard loam, 10 to 40 percent slopes (9), Rock outcrop-Pheeney complex, 40 to 90 percent slopes (96) Geologically sensitive area: No Bedrock age: Eocene; Holocene; Pleistocene Lithology: andesite flows; alluvium; alpine glacial outwash, pre-Fraser	Reach may include the following species: winter steelhead, resident cutthroat, rainbow trout, harlequin duck, VanDykes salamander, cascade torrent salamander.	Reach may include the following habitats and site specifics: Wetland and/or associated buffer (very minimal in-river polygons at up- and downstream extent), Anadromous fish spawning and/or rearing (winter steelhead), Habitat (harlequin duck breeding - entire reach), 100-year floodplain (lower reach only, appears to be mis-mapped - see note). Reach includes 4 mapped non-culvert barriers (3 IF [insufficient flow/falls], 1 PF [not defined, assumed partial falls, does not affect mapped fish distribution]). Banks entirely forested, some areas for entire jurisdiction, others in a narrow band with active forestry (including new/old clearcuts, logging roads and crossings in jurisdiction).	timber/forestland	LTF	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (network of private logging roads), bridges: 1 (unmapped logging road crossing per aerial), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	100-year floodplain in downstream areas only (appears to be mis-mapped, this affects mapped jurisdiction). Roads occur within jurisdiction but are not present in wetland or floodplain areas (although floodplain mis-mapping may affect this).

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Johnson Creek	Thompson Creek	SK-12-0-SK-12-1	0.53	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Chehalis silt loam (26), Melbourne silty clay loam, 5 to 20 percent slopes (66), Newberg fine sandy loam (71), Newberg loam (72) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach, river only except at confluence), Anadromous fish spawning and/or rearing (coho, winter steelhead), Habitat (harlequin duck breeding, Roosevelt and Rocky Mountain elk wintering (Centralia Mine herd)), 100-year floodplain (extensive east to Skookumchuck River and north to Skookumchuck Rd, with 200-ft buffer defines jurisdiction). Banks continuously vegetated (shrub/forest) in largely residential land with clearing for residential and agriculture landward within jurisdiction.	other, undeveloped, residential	RL 1/1	conservancy	Public access within the reach: roads (Skookumchuck Rd SE, Steelhead Dr SE, Whitefish Ct SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (3), bridges: no, railroads: no, marinas: no, utilities: yes (1 - powerline); Adjacent land uses: agriculture: yes (undeveloped), aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	While roads exist in shoreline jurisdiction, they do not occur in wetland or floodplain areas.
Thompson Creek	Thompson Creek	SK-12-1-SK-12-2	0.28	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): No Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: No Hydric soils: No Soil names: Chehalis silt loam (26), Newberg loam (72) Geologically sensitive area: No Bedrock age: Holocene; Pleistocene Lithology: alluvium; continental glacial outwash, gravel, Fraser-age	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (channel only), Anadromous fish spawning and/or rearing (coho, winter steelhead), Habitat (harlequin duck breeding, Roosevelt and Rocky Mountain elk wintering (Centralia Mine herd)), 100-year floodplain (entire reach, includes lobe north to Skookumchuck Rd, generally more from right (south) bank). Thompson Creek Bridge bank vegetation is narrow/fragmented (shrub/tree) with clearing for undetermined purpose landward, downstream banks largely vegetated (tree/shrub) with adjacent agriculture on left (west) bank.	residential, undeveloped	RRR 1/5	conservancy	Public access within the reach: road (Thompson Creek Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1) , bridges: 1 (Thompson Creek Bridge), railroads: no, marinas: no, utilities: yes (1 - powerline); Adjacent land uses: agriculture: yes (undeveloped), aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Thompson Creek	SK-12-2-SK-12-3	0.57	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Scamman silty clay loam, 5 to 20 percent slopes (101), Centralia silt loam, 15 to 30 percent slopes (24), Chehalis silt loam (26), Godfrey silty clay loam (41), Melbourne silty clay loam, 20 to 40 percent slopes (67), Newberg loam (72), Norma fine sandy loam (75) Geologically sensitive area: No Bedrock age: Holocene; Eocene, middle to upper; Pleistocene Lithology: alluvium; nearshore sedimentary rocks; continental glacial outwash, gravel, Fraser-age	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, harlequin duck, Roosevelt and Rocky Mountain elk.	Reach may contain the following habitats and site specifics: Wetland and buffer (channel only except for polygon overlapped associated floodplain lobe), Anadromous fish spawning and/or rearing (coho, winter steelhead), Habitat (harlequin duck breeding, Roosevelt and Rocky Mountain elk wintering (Centralia Mine herd)), 100-year floodplain (entire reach, includes large lobe extending off of left/west bank to the Skoomchuck River downstream of SK-7). Land use is agricultural, residential (across road), some forestland. Vegetation (tree/shrub) is largely intact and continuous both banks, left bank cleared behind for agricultural, right bank intact to road.	agriculture, timber/forestland, residential	LTA, RRR 1/5	not designated	Public access within the reach: road (Thompson Creek Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	None
Thompson Creek	Thompson Creek	SK-12-3-SK-12-4	0.19	Gradient: Low Confinement: Unconfined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Centralia silt loam, 15 to 30 percent slopes (24), Chehalis silt loam (26), Godfrey silty clay loam (41) Geologically sensitive area: No Bedrock age: Holocene; Eocene, middle to upper Lithology: alluvium; nearshore sedimentary rocks	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, Roosevelt and Rocky Mountain elk.	Reach may contain the following habitat: Wetland and associated buffer (channel downstream, upstream wetlands define jurisdiction both banks including large lob off left/west bank), Anadromous fish spawning and/or rearing (coho, winter steelhead), Habitat (Roosevelt and Rocky Mountain elk wintering (Centralia Mine herd), 100-year floodplain (entire reach, both banks). Vegetation continuous and intact (forest/shrub), left (west) bank forested with agriculture beyond, right (east) bank largely forested and includes road.	agriculture, timber/forestland	LTA, RRR 1/5	not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Agriculture occurs within jurisdiction, but appears to be far enough landward that it does not directly affect shoreline (bank) vegetation.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Thompson Creek	Thompson Creek	SK-12-4-SK-12-5	0.87	Gradient: Low Confinement: Moderately Confined Habitat: Small Tributary Steep slopes (>=40% slope): Yes Potential landslide area (>=15% slope): Yes Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Scamman silty clay loam, 5 to 20 percent slopes (101), Centralia silt loam, 15 to 30 percent slopes (24), Chehalis silt loam (26), Godfrey silty clay loam (41) Geologically sensitive area: No Bedrock age: Holocene; Eocene, middle to upper Lithology: alluvium; nearshore sedimentary rocks	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, Roosevelt and Rocky Mountain elk.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach, includes channel, jurisdictional complex removed on left/west bank, and adjacent areas on right (east) bank upstream/downstream and left (west) bank mid-reach), Anadromous fish spawning and/or rearing (coho, winter steelhead), Habitat (Roosevelt and Rocky Mountain elk wintering (Centralia Mine herd)), 100-year floodplain (splits to two parallel course, roughly matching stream course and parallel area to left/west). Land use is entire forestland, both banks and jurisdiction largely continuous/intact forest, except for swathe corresponding with utilities (cleared vegetation, narrow strip of bank vegetation left adjacent to stream corridor).	timber/forestland	LTF	not designated	Public access within the reach: road (Thompson Creek Rd SE)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: yes (4 culverts, no barriers), dams: no, armoring: no, Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: yes (4 - powerline, gasline, fuel, fiber optic); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Utility installation often results in vegetation disturbance; vegetation maintenance or other disturbance with utility easements may be required. May have an impact on water quality. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Substantial vegetation management associated with utilities in this reach. Jurisdiction is complex based on jurisdictional wetland that runs parallel to but separate from most of the reach on the left (west) bank.
Thompson Creek	Thompson Creek	SK-12-5-SK-12-6	n/a	Gradient: Low Confinement: Moderately Confined Habitat: Small Tributary Steep slopes (>=40% slope): No Potential landslide area (>=15% slope): No Surface hydrology: 100-year floodplain, associated wetlands High groundwater hazard: No Limited groundwater concern: Yes Hydric soils: Yes Soil names: Chehalis silt loam (26), Godfrey silty clay loam (41) Geologically sensitive area: No Bedrock age: Holocene; Eocene, middle to upper Lithology: alluvium; nearshore sedimentary rocks	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, Roosevelt and Rocky Mountain elk.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (entire reach, defines associated jurisdiction both banks), Anadromous fish spawning and/or rearing (coho, winter steelhead), Habitat (Roosevelt and Rocky Mountain elk wintering (Centralia Mine herd) - entire reach), 100-year floodplain (entire reach, two parallel bands, does not match stream corridor well). Entire reach is forestland, banks and jurisdiction entirely forested.	timber/forestland	LTF	not designated	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	End of County jurisdiction.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Waddell Creek	Waddell Creek	BL-8-0-BL-8-1	0.44	Gradient: Low. Confinement: Moderately Confined. Habitat: Side channel. Steep slopes (>=40% slope): No. Potential landslide area (>=15% slope): Yes. Surface hydrology: Waddell Creek flows into the Black River. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Eld loam (031). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial moraines, Fraser-age.	Reach may contain the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat, Oregon spotted frog	Reach may contain the following habitats and site specifics: Wetland and associated buffer (channel only, downstream only), Anadromous fish spawning and/or rearing (fall chinook , coho, winter steelhead), Oak (forest or woodland canopy (oak-conifer), habitat (conifer deciduous)) - both banks entire reach, 100-year floodplain (entire reach). There are depositional areas in creek bed. Narrow but largely continuous bank vegetation (trees) along both banks. Left bank agricultural (with residence), right bank primarily residential with cleared herbaceous areas (lawn); buildings and drives in jurisdiction.	agriculture, other, residential, undeveloped	R 1/20	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	None noted	Features noted without digitized polygons, may not exactly line up with final digitization (related to SMP confluence).
Waddell Creek	Waddell Creek	BL-8-1-BL-8-2	0.67	Gradient: Low. Confinement: Moderately confined. Habitat: Side channel. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Associated wetland. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil names: Eld loam (031), Everett very gravelly sandy loam, 3 to 15% slopes (033). Geologically sensitive area: No. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium; Continental glacial moraines, Fraser-age.	Reach may contain the following species: fall chinook, coho, winter steelhead, sea-run cutthroat, resident cutthroat, reticulate sculpin, Pacific lamprey	Reach may contain the following habitats and site specifics: Wetland and associated buffer (left/west bank only upstream), Anadromous fish spawning and/or rearing habitat (fall chinook, coho, winter steelhead), Oak (forest or woodland canopy (oak-conifer), habitat (conifer deciduous)) - downstream both banks, 100-year floodplain (entire reach, greater extent upstream). There are depositional areas in the creek bed. The left (east) bank is entirely vegetated (narrow band) with agricultural adjacent (USFWS - Black Lake Unit), right is bank largely forested with residential or open land (drives and buildings in jurisdiction).	undeveloped, residential	RRR 1/5, R 1/20	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	Reach includes additional property to be acquired and/or restored within the USFWS Black River Unit approved boundary.	Reach includes mapped historic site (Weiks Farm/Evergreen Dairy). Reach includes a mapped non-culvert barrier (U - undefined) - cannot visualize using aerial photos. Entire right bank is in agriculture per aerial photos, but is now owned by USFWS as part of the Black River Unit.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Waddell Creek	Waddell Creek	BL-8-2-BL-8-3	1.53	Gradient: Low. Confinement: Moderately confined, Unconfined and Confined. Habitat: Side Channel and Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: One unnamed tributary. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. High groundwater hazard: Yes. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Eld loam (031), Everett very gravelly sandy loam, 3 to 15% slopes (033), Everett very gravelly sandy loam, 30 to 50% slopes (035), Tenino gravelly loam, 3 to 15% slopes (117). Geologically sensitive area: No. Bedrock age: Holocene; Pleistocene; Eocene, lower to middle. Lithology: Alluvium; Continental glacial moraines, Fraser-age; Basalt flows and flow breccias, Crescent Formation.	Reach may contain the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, Pacific lamprey, reticulate sculpin, torrent sculpin.	Reach may contain the following habitats and site specifics: Wetland and associated buffer (2 small areas, upstream left/east bank, midreach right/west bank), Anadromous fish spawning and/or rearing (coho, winter steelhead), 100-year floodplain (wide downstream, narrows and ends midreach). There are depositional areas in creek bed. Both banks are continuously vegetated, trees extend through most of 200-ft jurisdiction but narrows in places with clearing associated with adjacent use.	undeveloped, residential, timber/forestland, agriculture, transportation	RRR 1/5	conservancy	Public access within the reach: roads (Waddell Creek Rd SW)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: 4 (includes private), bridges: yes (1 - unmapped per aerial at Waddell Creek Rd), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes water quality gauge (stream gauge). Agriculture occurs within jurisdiction, but appears to be far enough landward that it does not directly affect shoreline (bank) vegetation.
Waddell Creek	Waddell Creek	BL-8-3-BL-8-4	3.87	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Seven unnamed tributaries. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Eld loam (031), Everett very gravelly sandy loam, 0 to 3% slopes (032), Everett very gravelly sandy loam, 3 to 15% slopes (033), Olympia silt loam, 20 to 40% slopes (078), Tenino gravelly loam, 3 to 15% slopes (117), Tenino gravelly loam, 15 to 30% slopes (118), Raught silt loam, 30 to 65% slopes (094). Geologically sensitive area: No. Bedrock age: Holocene; Pleistocene; Eocene, lower to middle. Lithology: Alluvium; Continental glacial moraines, Fraser-age; Basalt flows and flow breccias, Crescent Formation.	Reach may include the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, reticulate sculpin, Pacific lamprey, riffle sculpin	Reach may include the following habitats and site specifics: Anadromous fish spawning and/or rearing habitat (coho, winter steelhead), 100-year floodplain (upper and midreach only, ends before downstream end, may be mis-mapped, see note). The entire reach is within active forestlands. The stream corridor is continuously vegetated with forest on both banks, but includes areas of recent clearcutting and replanting within jurisdiction.	undeveloped	LTF	conservancy	Public access within the reach: roads (Capitol Forest roads, Sherman Valley Rd SW), Parks and Gov't Land (Capitol Forest)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: 2, bridges: yes (1 - unmapped per aerial at Capitol Forest road crossing), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach includes water quality gauge (rain gauge). Reach is entirely within Capitol Forest. 100-year floodplain appears to be mismapped relative to the channel, this may affect jurisdiction.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Waddell Creek	Waddell Creek	BL-8-4-BL-8-5	1.77	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Noski Creek and four unnamed tributaries. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Eld loam (031), Raught silt loam, 30 to 65% slopes (094), Tenino gravelly loam, 3 to 15% slopes (117), Tenino gravelly loam, 15 to 30% slopes (118), Boistfort silt loam, 5 to 20% slopes (015), Olympic silt loam, 20 to 40% slopes (078). Geologically sensitive area: No. Bedrock age: Holocene; Eocene, lower to middle. Lithology: Alluvium; Basalt flows and flow breccias, Crescent Formation.	Reach may include the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, Pacific lamprey, riffle sculpin, tailed frog	Reach may include the following habitats and site specifics: Anadromous fish spawning and/or rearing habitat (coho, winter steelhead), 100-year floodplain (entire reach, both banks, may be mismapped relative to channel - see note). Stream banks are continuously and entirely forested, except where clearing occurs for residential and recreational purposes or for the road. At the upstream end of the reach the right/west bank is cleared close to the bank for agricultural (ranch) purposes. The most of the reach is an "island" of land within, but not considered part of, Capitol Forest.	undeveloped, recreation, timber/forestland, residential	LTF	conservancy	Public access within the reach: roads (Sherman Valley Rd SW), Parks and Gov't Land (Capitol Forest - upstream only)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: 1, bridges: yes (1 - Sherman Valley Rd), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach is surrounded by, but does not include, Capitol Forest (except at upstream end). 100-year floodplain appears to be mismapped relative to the channel, this may affect jurisdiction.
Waddell Creek	Waddell Creek	BL-8-5-BL-8-6	0.86	Gradient: Low. Confinement: Confined. Habitat: Small Tributary. Steep slopes (>=40% slope): Yes. Potential landslide area (>=15% slope): Yes. Surface hydrology: Three unnamed tributaries. Associated wetlands. 100-year floodplain. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil names: Eld loam (031), Raught silt loam, 30 to 65% slopes (094), Olympic silt loam, 20 to 40% slopes (078), Burker-Boistfort complex, 40-65% slopes (019), Boistfort silt loam, 5 to 20% slopes (015). Geologically sensitive area: No. Bedrock age: Holocene; Eocene, lower to middle. Lithology: Alluvium; Basalt flows and flow breccias, Crescent Formation.	Reach may include the following species: coho, winter steelhead, sea-run cutthroat, resident cutthroat, riffle sculpin, tailed frog	Reach may include the following habitats and site specifics: Wetland and associated buffer (midreach, 1 small area each bank), Anadromous fish spawning and/or rearing habitat (coho, winter steelhead), 100-year floodplain (entire reach parallel to channel, may be mismapped, see note). The entire stream corridor is continuously forested with small areas of replanting. The adjacent floodplain jurisdiction (see note) includes areas of recent harvest and replanting.	undeveloped	LTF	conservancy, not designated	Public access within the reach: Parks and Gov't Land (Capitol Forest)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: n/a	Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	None noted	Reach is entirely within Capitol Forest. 100-year floodplain appears to be mismapped relative to the channel, this may affect jurisdiction.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
McAllister Creek	Nisqually Reach	MNI-19-MNI-20	0.16	Shoreline type: Sand beach. Slope stability: Intermediate. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial drift, Fraser-age.	Reach may contain the following species: bald eagle, purple martin	Reach may contain the following habitat and site specifics: waterfowl concentrations resulting from non-farmed wetlands and wet pasture lands associated with the Nisqually River Delta, shellfish spawning, rearing, and harvesting areas. Most of the shoreline exhibits fragmented forest cover adjacent to residential use plots.	residential, undeveloped	RRR 1/5	rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (continuous bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - None; Delta - Restore. Low: pre-glacial seds, few landslides, moderate bluff height (Herrera and TRPC 2005)	This reach falls entirely within the Nisqually shellfish Protection District.
McAllister Creek	Nisqually Reach	MNI-20-MNI-21	0.08	Shoreline type: Sand beach. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: No. Surface Hydrology: Stream mouth drains through lagoon to Nisqually Reach. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: bald eagle, purple martin, dun	Reach may contain the following habitat and site specifics: waterfowl concentrations resulting from non-farmed wetlands and wet pasture lands associated with the Nisqually River Delta, shellfish spawning, rearing, and harvesting areas. Most of the shoreline exhibits fragmented forest cover adjacent to residential use plots.	residential, aquatic	RRR 1/5	rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads in western half of reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - None; Delta - Restore. Low: pre-glacial seds, few landslides, moderate bluff height (Herrera and TRPC 2005). Opportunity to reconnect lagoon to Puget Sound.	This reach falls entirely within the Nisqually shellfish Protection District.
McAllister Creek	Nisqually Reach	MNI-21-MNI-22	0.16	Shoreline type: Sand beach. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Left to Right changes to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Hydraquents, tidal (045). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial drift, Fraser-age.	Reach may contain the following species: bald eagle, purple martin	Reach may contain the following habitat and site specifics: waterfowl concentrations resulting from non-farmed wetlands and wet pasture lands associated with the Nisqually River Delta, shellfish spawning, rearing, and harvesting areas. Most of the shoreline exhibits fragmented forest cover adjacent to residential use plots.	residential, aquatic	Residential LAMIRD 1/2	rural	Public access within the reach: Nisqually Habitat Management Area owned by DFW with known public access.	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads mid-reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: restricted	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	PSNERP Strategies: Beach - Enhance High and Restore; Barrier Embayment - Restore; Coastal Inlet - None; Delta - Restore. Low: pre-glacial seds, few landslides, moderate bluff height (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation in the southern section of the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District. The easternmost parcels within this reach are characterized as undeveloped land with shoreline public access, associated with the boat launch to the east.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
McAllister Creek	Nisqually Reach	MNI-22-MNI-23	0.24	Shoreline type: Sand beach. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Stream mouth drains to Nisqually Reach. Drift cell changes: Yes. Divergence Zone changes to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Distric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Hydraquents, tidal (045), Everett very gravelly sandy loam, 3 to 15% slopes (033). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: purple martin, bald eagle	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, waterfowl nesting habitat, estuary marshlands, eelgrass beds. Wetlands and associated buffers are present for the extent of the reach. The entire reach is characterized as Nisqually bluffs. Shoreline vegetation is comprised of trees and shrubs which border residential parcels. The shoreline exhibits tideflats and estuarine sand bars.	Undeveloped land, Residential	RL1/2	Rural	Public access within the reach: motor boat launch (Nisqually Delta-Luhrs Landing (WDFW)) . Nisqually Habitat Management Area owned by DFW with known public access throughout this reach.	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: yes (northern half of reach contains bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None; Delta - Restore. Low, Pre-glacial seds, few landslides, moderate bluff height (Herrera and TRPC, 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009).	This reach is immediately adjacent to the Nisqually Wildlife Refuge. This reach falls entirely within the Nisqually shellfish Protection District.
McAllister Creek	Nisqually Reach	MNI-23-MNI-24	0.23	Shoreline type: Sand beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Distric Xerochrepts, 60 to 90% slopes (030), Hydraquents, tidal (045). Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats: waterfowl nesting habitat, wood duck brooding habitat, estuary marshlands and eelgrass beds. The extent of this reach is characterized as Nisqually bluffs. Shoreline is heavily forested and completely undeveloped.	Undeveloped Land	PP	Natural	Public access within the reach: Nisqually Habitat Management Area owned by DFW with known public access. Shoreline public access is available throughout this reach.	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	None noted	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None; Delta - Restore. Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009). This reach is entirely within the Nisqually Wildlife Refuge. See note.	The Nisqually National Wildlife Refuge was established in 1974 for the protection of migratory birds. Three thousand acres of salt and freshwater marshes, grasslands, riparian, and mixed forest habitats provide habitat for avian species including migratory waterfowl, songbirds, raptors, and wading birds. This reach falls entirely within the Nisqually shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
McAllister Creek	Nisqually Reach	MNI-24-MNI-25	0.05	Shoreline type: Sand beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: No. Surface Hydrology: Stream mouth flows into Nisqually Reach. Drift cell changes: No. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Distric Xerochrepts, 60 to 90% slopes (030). Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: wood duck	Reach may contain the following habitats: waterfowl nesting habitat, wood duck brooding habitat, estuary marshlands and eelgrass beds. The extent of this reach is within the Nisqually bluff area. Shoreline vegetation is heavily forested and undeveloped. Residential use/clearing of parcels within this reach occurs about 500 feet inland from the forested shoreline.	Residential	RL1/2	Natural	Shoreline public access is mapped as being available throughout this reach. However, this reach is comprised of 3 residential, privately-owned parcels.	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	None noted	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None; Delta - Restore. Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009). This reach is bordered to the north and south by Nisqually Wildlife Refuge lands.	Shoreline public access is mapped as being available throughout this reach. However, this reach is comprised of 3 residential, privately-owned parcels. This reach falls entirely within the Nisqually shellfish Protection District.
McAllister Creek	Nisqually Reach	MNI-25-MNI-26	0.69	Shoreline type: Sand beach; Organics/fines. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Five streams drain into the Nisqually Reach/McAllister Creek estuary. Estuarine and riverine wetland. Drift cell changes: Yes. Right to Left changes to No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Distric Xerochrepts, 60 to 90% slopes (030), Hydraquents, tidal (045). Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial drift, Fraser-age, Alluvium.	Reach may contain the following species: wood duck, great blue heron, chum, coho, chinook, pink, sockeye, sea-run cutthroat, winter steelhead	Reach may contain the following habitats: waterfowl nesting habitat, wood duck brooding habitat, anadromous fish spawning habitat (chum), estuary marshlands and eelgrass beds. The extent of this reach is within the Nisqually bluff area. Shoreline is heavily forested and undeveloped.	Open Space	PP	Natural	Public access within the reach: Public access within the reach: Nisqually Habitat Management Area owned by DFW with known public access. Shoreline public access is available throughout this reach.	Modifications: piers/docks/boat ramps: no, grains/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	None noted	PSNERP Strategies: Beach - None; Barrier Embayment - None; Coastal Inlet - None; Delta - Restore. Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009). This reach is entirely within the Nisqually Wildlife Refuge. See note.	The Nisqually National Wildlife Refuge was established in 1974 for the protection of migratory birds. Three thousand acres of salt and freshwater marshes, grasslands, riparian, and mixed forest habitats provide habitat for avian species including migratory waterfowl, songbirds, raptors, and wading birds. This reach falls entirely within the Nisqually Shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
McAllister Creek	Nisqually Reach	MNI-26-MNI-27	3.63	Shoreline type: Flats. Slope stability: Stable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes, on edges of dike. Past landslides: No. Surface Hydrology: Almost entire reach is mapped wetland. McAllister Creek is on west side of this reach. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Hydraquents, tidal (045), Pilchuck loamy sand (084), Tacoma silt loam (116), Puget silt loam (129). Bedrock age: Holocene. Lithology: Alluvium.	Reach may contain the following species: wood duck, great blue heron, chum, coho, chinook, pink, sockeye, sea-run cutthroat, winter steelhead	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, waterfowl nesting habitat, wood duck brooding habitat, anadromous fish spawning habitat (chum), estuary marshlands and eelgrass beds. Wetlands are found throughout the reach, though they are not continuous. The extent of this reach is within the 100-year floodplain. Coastal salt marsh, brackish marshland and salt meadows characterize the majority of this reach; no development has occurred within the shoreline parcels.	Open Space, Undeveloped	PP	Natural on west side of dike. Conservancy on east side of dike.	Public access within the reach: Parks/Gov't Land (Nisqually National Wildlife Refuge). Shoreline public access is available throughout this reach.	Modifications: piers/docks/boat ramps: no (see notes), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - None; Barrier Embayment - None; Coastal Inlet - None; Delta - Restore. Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009). This reach is entirely within the Nisqually Wildlife Refuge. See note.	The Nisqually National Wildlife Refuge This reach falls entirely within the Nisqually shellfish Protection District. The footbridge crossing from dike into wetland is not technically on marine shorelines.
Nisqually	Nisqually Reach	MNI-27-MNI-28	1.61	Shoreline type: Flats. Slope stability: Stable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes, on edges of dike. Past landslides: No. Surface Hydrology: Entire reach is mapped wetland. Nisqually River is on east side of this reach. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Hydraquents, tidal (045), Tacoma silt loam (116). Bedrock age: Holocene. Lithology: Alluvium.	Reach may contain the following species: wood duck, chum, coho, chinook, pink, sockeye, sea-run cutthroat, winter steelhead, summer steelhead, harbor seal, Dungeness crab	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, waterfowl nesting habitat, harbor seal haulout/pupping area, wood duck brooding habitat, anadromous fish spawning habitat (coho, chinook), anadromous fish rearing habitat (chinook), estuary marshlands and eelgrass beds. Wetlands comprise the majority of the reach on the Thurston County shoreline, which is entirely within the 100-year floodplain. Coastal salt marsh, brackish marshland and salt meadows characterize this shoreline habitat. The reach is entirely undeveloped.	Open Space, Undeveloped, Parks	PP	Natural on north side of dike. Conservancy on south side.	Public access within the reach: Parks/Gov't Land (Nisqually National Wildlife Refuge). Shoreline public access is available throughout this reach.	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no , Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - None; Barrier Embayment - None; Coastal Inlet - None; Delta - Restore. Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009). This reach is entirely within the Nisqually Wildlife Refuge.	This reach is contained entirely within the Nisqually Wildlife Refuge. This reach marks the end of marine shorelines within Thurston County, and the beginning of Nisqually riverine reaches.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
West Bay	Budd Inlet	MBU-00-MBU-01	0.66	Shoreline type: Sand beach; Sand flat. Slope stability: Intermediate and Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Kapowsin silt loam, 15 to 30% slopes (052) Bedrock age: Pleistocene. Lithology: Continental sedimentary deposits or rocks, Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, sandlance, rocksole	Reach may contain the following habitats: open lagoon (at south end of reach), mapped shellfish spawning, rearing, and harvesting areas. Shoreline vegetation is comprised of fragmented stands of trees and shrubs and in some areas residential development extends to the shoreline.	residential, undeveloped	Residential LAMIRD 1/1	rural	Public road enters jurisdiction but does not provide direct water access (Cooper Pt Rd NW))	Modifications: piers/dock/ boat ramps: yes (6), grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads continuous throughout the reach), Facilities: roads: yes (Cooper Pt Rd NW), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Enhance; Coastal Inlet - . Identified as beneficial to all juvenile salmon and appropriate for restoration in southern section of reach (Squaxin Island Tribe, 2009).	None
West Bay	Budd Inlet	MBU-01-MBU-02	0.07	Shoreline type: Sand flat. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes. Majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Ravine with stream mouth with sediment delivery to beach. Pocket estuary. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Kapowsin silt loam, 15 to 30% slopes (052). Bedrock age: Pleistocene. Lithology: Continental sedimentary deposits or rocks.	Reach may contain the following species: smelt, sand lance, rocksole, purple martin	Reach may contain the following habitats: shellfish spawning, rearing, and harvesting areas, open lagoon, stream and delta. Reach is composed of a steep sloped ravine, with some natural vegetation as well as some modified shoreline areas.	other - cultural	Residential LAMIRD 1/1	rural	Tamoshan Homeowners Park is a privately owned community beach with access for members of the private community.	Modifications: piers/dock/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Enhance; Coastal Inlet - . Identified as beneficial to all juvenile salmon and appropriate for restoration (Squaxin Island Tribe, 2009).	Wastewater treatment plant just upstream of shoreline jurisdiction.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
West Bay	Budd Inlet	MBU-02-MBU-03	0.76	Shoreline type: Sand and gravel beach, narrow; Sand and gravel flat or fan. Slope stability: Stable and Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: Yes, northern half of reach. Hydric soils: No. Soil Names: Kapowsin silt loam, 15 to 30% slopes (052), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental sedimentary deposits or rocks, Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, sand lance, rocksole, purple martin	Reach may contain the following habitats: lagoons, shellfish spawning, rearing, and harvesting areas,smelt and rocksole spawning areas. Shoreline vegetation is comprised of fragmented stands of trees and shrubs and in some areas residential development extends to the shoreline.	residential, undeveloped	Residential LAMIRD 1/1, Residential LAMIRD 1/2	rural	Public road enters jurisdiction but does not provide direct water access (Athens Beach Dr NW)	Modifications: piers/docks/boat ramps: yes (2), grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: yes (Athens Beach Dr NW), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Enhance; Coastal Inlet - None. Low: low bluff, (undifferentiated glacial till), few landslides (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration (Squaxin Island Tribe, 2009).	None
West Bay	Budd Inlet	MBU-03-MBU-04	0.99	Shoreline type: Sand and gravel flat or fan; Sand flat. Slope stability: Unstable, Stable, and Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 15 to 30% slopes (052), Kapowsin silt loam, 3 to 15% slopes (051), Skipopa silt loam, 3 to 15% slopes (108), Skipopa silt loam, 0 to 3% slopes (107), Dystric Xerochrepts, 60 to 90% slopes (030). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, rocksole, purple martin, bald eagle	Reach may contain the following habitats: shellfish spawning, rearing, and harvesting areas, smelt and rocksole spawning areas. Some small areas of forest remain on the shoreline, but the majority of shoreline vegetation is comprised of fragmented stands of trees and shrubs with residential plantings and areas of clearing.	residential, undeveloped, aquatic, timber/forestland	RRR 1/5	rural	None noted	Modifications: piers/docks/boat ramps: yes (7), grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: yes (dissolved oxygen offshore), contaminated sediments: no, shellfish harvest ratings: closed due to pollution	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list). Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Enhance; Coastal Inlet - None. Low: low bluff, (undifferentiated glacial till), few landslides (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration in southern half of reach (Squaxin Island Tribe, 2009).	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
West Bay	Budd Inlet	MBU-04-MBU-05	1.30	Shoreline type: Sand flat; Sand and gravel beach, narrow; Sand and gravel flat or fan; Sand beach. Slope stability: Unstable and Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Two streams deliver sediment to the beach. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Xerothents, 0 to 5% slopes (125), Everett very gravelly sandy loam, 3 to 15% slopes (033), Kapowsin silt loam, 30 to 50% slopes (053). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, sand lance, rocksole, purple martin, bald eagle	Reach may contain the following habitats: smelt spawning areas, sand lance spawning areas, and rocksole spawning areas. The northern half of this reach exhibits heavily forested shoreline. The southern half exhibits residential parcels with some areas of clearing, fragmented tree stands and residential plantings.	residential, undeveloped, aquatic	RRR 1/5, Residential LAMIRD 1/1	rural	Public road enters jurisdiction but does not provide direct water access (Country Club Dr NW). Evergreen State College Land parcel. Government owned land with no known public access.	Modifications: piers/docks/boat ramps: yes (5), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: yes (Country Club Dr NW), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: yes (dissolved oxygen offshore), contaminated sediments: no, shellfish harvest ratings: closed due to pollution	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Enhance; Coastal Inlet - None. High: glacial outwash with many landslides (including deep seated), moderate bluff, littoral connection (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration in segments of the reach (Squaxin Island Tribe, 2009).	None
West Bay	Budd Inlet	MBU-05-MBU-06	0.39	Shoreline type: Sand beach; Sand flat. Slope stability: Intermediate and Unstable. Steep slopes (>=40% slope): Yes, primarily around Butler Creek. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes, near Butler Creek. Surface Hydrology: Butler Creek drains to Inlet and delivers sediment. Another creek drains to Butler Cove in this reach. Drift cell changes: Yes. Left to Right changes to Divergence Zone, then to Right to Left, Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 30 to 50% slopes (053), Kapowsin silt loam, 15 to 30% slopes (052), Dystric Xerochrepts, 60 to 90% slopes (030). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, sand lance, rocksole, bald eagle, purple martin, clams, searun cutthroat (butler Creek)	Reach may contain the following habitat: forage fish spawning beaches, estuarine intertidal habitat. Most of the shoreline appears modified with cleared areas for residential and community use, with very little natural vegetation present.	residential, undeveloped, aquatic	Residential LAMIRD 1/1	rural	Public road enters jurisdiction but does not provide direct water access (Country Club Dr NW). Olympic Country and Golf Club is private land with known public access through the formal organization.	Modifications: piers/docks/boat ramps: yes (5), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: yes (Country Club Dr NW), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (this reach may contain over 30% impervious surface); Water quality: 303(d) list: yes (dissolved oxygen offshore, fecal coliform within Butler Creek), contaminated sediments: yes (Haumann Property), shellfish harvest ratings: closed due to pollution	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Restore; Barrier Embayment - Enhance; Coastal Inlet - Restore. High: glacial outwash with many landslides (including deep seated), moderate bluff, littoral connection (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration (Squaxin Island Tribe, 2009).	A Water quality sample site is located within this reach in Butler Creek near the mouth.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
West Bay	Budd Inlet	MBU-06-MBU-07	1.32	Shoreline type: Sand flat; Sand beach. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: The mouth of Butler Creek is the north end of the reach. Two unnamed creeks empty into Butler Cove. Associated freshwater wetland. Drift cell changes: Yes. Left to Right changes to Divergence Zone, then to Right to Left. High groundwater hazard: Limited groundwater concern: Hydric soils: Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Alderwood gravelly sandy loam, 3 to 15% slopes (002),Alderwood gravelly sandy loam, 0 to 3% slopes (001), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, Fraser-age.	Reach may contain the following species: smelt, rocksole, purple martin, harbor seals	Reach may contain the following habitat: forage fish and rock fish spawning beaches, Wetlands and associated buffers, harbor seal haul out areas. Shoreline has some areas of forested tree stands, and other areas marked by residential use (clearing).	residential, undeveloped, aquatic	Residential 1/5, R-4, Residential 4-8	rural	Public roads enter jurisdiction but do not provide direct water access (French Loop NW, 25th Avenue NW)	Modifications: piers/docks/boatramps: yes (1) , groins/jetties: no, culverts: yes (culverts are associated with a roads which parallels Budd Inlet, but does not intersect - Country Club Dr NW French Lp NW) dams: no, armoring: yes (bulkheads), Facilities: roads: yes (French Loop NW, 25th Avenue NW), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structure, pavement); Water quality: 303(d) list: yes (dissolved oxygen offshore), contaminated sediments: no, shellfish harvest ratings: closed due to pollution	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enhance; Barrier Embayment - None; Coastal Inlet - Restore and Enhance. High: glacial outwash with many landslides (including deep seated), moderate bluff, littoral connection (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration in a small section of northern reach in Butler Cover (Squaxin Island Tribe, 2009).	None
East Bay	Budd Inlet	MBU-08-MBU-09	2.20	Shoreline type: Sand flat; Sand Beach. Slope stability: Unstable, Stable, and Modified. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Four streams flow into Budd Inlet here. Two associated wetlands. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Hoogdal silt loam, 15 to 30% slopes (043), Skipopa silt loam, 0 to 3% slopes (107), Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental sedimentary deposits or rocks, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, sandlance, rocksole, purple martin, coho salmon	Reach may contain the following habitat: forage fish and rocksole spawning beaches, wetlands and associated buffers. Shoreline has some areas of forested tree stands, and other areas marked by residential use (clearing).	Residential, undeveloped, aquatic, commercial	RRR 1/5, Residential LAMIRD 1/1, Residential LAMIRD 1/2	conservancy, rural	Public access within the reach: government land (DNR Marine Research center with DNR dock). Research center is in northern portion of reach; tidelands owned by DNR are mid-reach.	Modifications: piers/docks/boat ramps: yes (7), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures/pavement); Water quality: 303(d) list: yes (dissolved oxygen, fecal coliform), contaminated sediments: no, shellfish harvest ratings: closed due to pollution	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect High; Coastal Inlet- Protect High (in northernmost portion of reach). High: sand, gravel, mass wasting deposits, outwash, (not high bluff throughout), overhanging vegetation (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration in two small sections of reach (Squaxin Island Tribe, 2009). The WDNR Marine Lab (south) is recommended for conserve/enhance/restore/preserve. Recommended restoration projects are: bulkhead removal (43), and creating riparian habitat (44). (Squaxin Island Tribe, Juvenile Salmonid Approach to Prioritization for Restoration and Conservation of Budd Inlet, 2010). The WDNR Marine Lab	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
													(north), is recommended for nhance/restore/conserve. Recommendations include: create a restoration plan (32); and bulkhead removal (25). (Squaxin Island Tribe, Juvenile Salmonid Approach to Prioritization for Restoration and Conservation of Budd Inlet, 2010).	
East Bay	Budd Inlet	MBU-09-MBU-10	0.07	Shoreline type: Sand beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, rocksole, purple martin	Reach may contain the following habitats: smelt and rocksole spawning beaches. This reach is heavily forested and undeveloped.	undeveloped	PP	rural	Public access within the reach: Thurston County Park with known public access (Indian Road undeveloped natural area)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (fecal coliform), contaminated sediments: no, shellfish harvest ratings: closed due to pollution	Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect High; Coastal Inlet- Protect High. High: gravel and sand, (high cohesion), much erosion and landsliding, high bluff, littoral connection, mat (Herrera and TRPC 2005).	Reach is defined by shoreline boundaries of Indian Road natural area.
East Bay	Budd Inlet	MBU-10-MBU-11	0.59	Shoreline type: Sand beach; Sand and gravel beach, narrow. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Sand spit at northern end of reach. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental sedimentary deposits or rocks.	Reach may contain the following species: smelt, rocksole, purple martin	Reach may contain the following habitats and site specifics: lagoon, sand spit, smelt and rocksole spawning beaches. Shoreline vegetation is comprised of fragmented and unfragmented tree stands, with some areas of clearing inland from shore, but very few parcels that exhibit modification up to the marine shoreline.	Residential, Undeveloped, agriculture	Residential LAMIRD 1/2, RRR 1/5	rural, conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (fecal coliform), contaminated sediments: no, shellfish harvest ratings: closed due to pollution	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect High; Coastal Inlet- Protect High. High: gravel and sand, (high cohesion), much erosion and landsliding, high bluff, littoral connection, mat (Herrera and TRPC 2005). PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect High; Coastal Inlet- Protect High.	Large private conservation parcel in this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
East Bay	Budd Inlet	MBU-11-MBU-12	2.10	Shoreline type: Sand and gravel beach, narrow; Organics/fines; Sand beach. Slope stability: Stable, Intermediate, and Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Four stream mouths flow into the inlet. Associated wetland. Pocket estuary. Drift cell changes: Yes. Right to Left changes to Undefined, then to Left to Right, then to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 3 to 15% slopes (051), Skipopa silt loam, 0 to 3% slopes (107). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental sedimentary deposits or rocks, Continental glacial outwash, sand, Fraser-age.	Reach may contain the following species: smelt, rocksole, coho salmon, purple martin	Reach may contain the following habitats and site specifics: lagoons, estuarine zone, wetlands and associated buffers. Seabird nesting cliff nesting area. Reach shoreline is heavily forested and undeveloped.	timber/forestl and, agriculture	RRR 1/5	conservanc y	None noted	Modifications: piers/docks/boat ramps: yes (1), grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no data available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PSNERP Strategies: Beach - Protect and restore; Barrier Embayment - Protect High; Coastal Inlet-Protect High. High: gravel and sand, (high cohesion), much erosion and landsliding, high bluff, littoral connection, mat (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). Gull Harbor is recommended for conserve/ preserve. Recommendations include: create a restoration plan for Gull Harbor (27), create a stewardship district for Gull Harbor watershed (28), create a connecting corridor (30), work to reforest the watershed (31), replace the culvert (77), and remove overwater structures (78) (Squaxin Island Tribe, Juvenile Salmonid Approach to Prioritization for Restoration and Conservation of Budd Inlet, 2010).	A parcel within this reach has a conservation easement on it held by the Capitol Land Trust
East Bay	Budd Inlet	MBU-12-MBU-13	1.36	Shoreline type: Sand beach; Sand flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: A stream is mapped within the reach. Drift cell changes: Yes. Divergence Zone changes to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Indianola loamy sand, 15 to 30% slopes (048), Skipopa silt loam, 0 to 3% slopes (107). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental sedimentary deposits or rocks.	Reach may contain the following species: smelt, rocksole, purple martin	Reach may contain the following habitat and site specifics: shellfish spawning, rearing, and harvesting areas. The majority of the shoreline within this reach appears heavily forested, with some areas of clearing for agricultural use.	undeveloped, residential, timber/forestl and,	RRR 1/5	rural	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no data available	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet-none. High: gravel and sand, (high cohesion), much erosion and landsliding, high bluff, littoral connection, mat (Herrera and TRPC 2005).	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
East Bay	Budd Inlet	MBU-13-MBU-14	0.25	Shoreline type: Sand flat; Sand beach. Slope stability: Unstable and Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Stream mouth. Small associated wetland. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental sedimentary deposits or rocks.	Reach may contain the following species: smelt	Reach may contain the following habitat and site specifics: wetlands and associated buffers, shellfish spawning, rearing, and harvesting areas, smelt spawning beaches. Shoreline is heavily forested and undeveloped except for one building.	undeveloped, parks	PP	rural	Public access within the reach: park (Burfoot County Park)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no data available	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet-Protect. High: gravel and sand, (high cohesion), much erosion and landsliding, high bluff, littoral connection, mat (Herrera and TRPC 2005).	Reach is defined by shoreline boundaries of Thurston County Burfoot Park.
East Bay	Budd Inlet	MBU-14-MBU-15	0.57	Shoreline type: Sand beach. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, sand lance, rock sole, purple martin	Reach may contain the following habitat and site specifics: shellfish spawning, rearing, and harvesting areas, smelt and rocksole spawning beaches. Shoreline exhibits fragmented forest and residential plantings due to residential use.	residential, undeveloped, aquatic	Residential LAMIRD 1/1	rural	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads continuous for north half of reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no data available	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet - none. High: gravel and sand, (high cohesion), much erosion and landsliding, high bluff, littoral connection, mat (Herrera and TRPC 2005).	None
East Bay	Budd Inlet	MBU-15-MBU-16	0.78	Shoreline type: Sand beach; Sand flat. Slope stability: Stable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: No. Surface Hydrology: None. Drift cell changes: Yes. Right to Left changes to Undefined, then to Left to Right, then to Divergence Zone, then to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: herring, smelt, sandlance, rock sole, purple martin, bald eagle.	Reach may contain the following habitat and site specifics: smelt/sandlance and rocksole spawning beaches. The shoreline exhibits extensive modification, with little natural vegetation. Most parcels are cleared or exhibit residential plantings and/or structures.	residential, undeveloped, transportation, commercial/industrial	Residential LAMIRD 1/1	rural	Public access within the reach: public boat launch (Boston Harbor boat ramp - WDFW), private marina open to the public (Boston Harbor Marina)	Modifications: piers/docks/boat ramps: yes (7), grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: yes (7 in jurisdiction but no access), bridges: no, railroads: no, marinas: yes (Boston Harbor), utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (reach may contain over 30% impervious surface); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no data available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Ports or marinas may have an impact on water quality and alter hydrologic/sediment transport.	PSNERP Strategies: Beach - Restore and enhance; Barrier Embayment - Protect in Boston Harbor, Restore at Dover Point; Coastal Inlet - Restore.	Commercial Street SE, Boston Harbor Road NE, and 73rd, 74th, 75th, 76th, and 77th Avenues NE cross into shoreline jurisdiction but do not provide access to the water

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
												May result in aquatic and nearshore loss of habitat. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.		
Dana Passage	Budd Inlet	MBU-16-MBU-17	0.66	Shoreline type: Sand beach; Sand and gravel beach, narrow; Sand flat. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: A creek mouth drains to the tidal inlet. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: herring, smelt, purple martin, bald eagle	Reach may contain the following habitats and site specifics: slough, shellfish spawning, rearing, and harvesting areas, estuarine intertidal area, smelt and rocksole spawning beaches. This reach is characterized by residential development on the shoreline, with areas of clearing and non-native vegetation.	residential	Residential LAMIRD 1/1	rural, conservancy	None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no data available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - Protect. Identified as beneficial to all juvenile salmon in western half of reach (Squaxin Island Tribe, 2009).	None
Dana Passage	Budd Inlet	MBU-17-MBU-18	0.67	Shoreline type: Sand flat; Sand beach. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Tidal inlet with stream mouth. A second stream flows into Dana Passage and deposits sediment in this reach. Drift cell changes: Yes. Right to Left changes to Left to Right, then to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: rocksole, purple martin, bald eagle	Reach may contain the following habitats and site specifics: slough, shellfish spawning, rearing, and harvesting areas, estuarine intertidal areas, rocksole spawning beaches. This reach is characterized by residential development on the shoreline, with areas of clearing and non-native vegetation.	residential, undeveloped, timber/forestland	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads in eastern portion of reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: yes (structures, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PSNERP Strategies: Beach - Restore and enhance; Barrier Embayment - Restore (southern reach) and Restore High (northern reach); Coastal Inlet - Protect. High: landslides throughout, sand, vegetated (site 42), high storm exposure, long fetch (Herrera and TRPC, 2005). Identified as beneficial to all juvenile salmon in section of reach (Squaxin Island Tribe, 2009).	Private conservation parcel in reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Dana Passage	Budd Inlet	MBU-18-MBU-19	1.66	Shoreline type: Sand beach; Sand flat. Slope stability: Unstable, Stable, and Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Three streams flow into Dana Passage in this reach. Tidal inlet with pocket estuary. Drift cell changes: Yes. Divergence Zone changes to Right to Left. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: herring, smelt, sand lance, rock sole, purple martin, bald eagle	Reach may contain the following habitat and site specifics: lagoon (mid reach), shellfish spawning, rearing, and harvesting areas, smelt/sandlance and rocksole spawning beaches. Shoreline is mostly forested, with only a few areas of clearing for residential use.	residential, undeveloped	Residential LAMIRD 1/1, RRR 1/5	conservancy, rural	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no data available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Restore High; Coastal Inlet - Protect. High: landslides throughout, sand, vegetated (site 42), high storm exposure, long fetch. (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon in segments of the reach (Squaxin Island Tribe, 2009).	none
Dana Passage	Budd Inlet	MBU-19-MBU-20	1.84	Shoreline type: Sand flat; Organics/fines. Slope stability: Intermediate. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Tidal inlet with two streams flowing in. Drift cell changes: Yes. Right to Left changes to Undefined. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 3 to 15% slopes (051), Bellingham silty clay loam (014). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental till, Fraser-age.	Reach may contain the following species: smelt, sand lance, rock sole, purple martin, bald eagle	Reach may contain the following habitats and site specifics: lagoons and estuary zones, smelt/sandlance and rocksole spawning beaches. Shoreline vegetation is largely forest, with a few areas of residential modification in the northern portion of the reach.	residential, undeveloped, aquatic	Residential LAMIRD 1/1	conservancy	None noted	Modifications: piers/docks/boat ramps: yes (6), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (Fishtrap Loop NE), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no data available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	PSNERP Strategies: Beach - none; Barrier Embayment - Protect High; Coastal Inlet - Protect High. Identified as a preservation site by Herrera and TRPC, 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009).	

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Dana Passage	Budd Inlet	MBU-20-MBU-21	1.24	Shoreline type: Sand beach; Sand flat. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Reach lies between two tidal inlets. Stream flows into Dickerson Point area on east side of reach. Pocket estuary in lagoon in eastern inlet. Drift cell changes: Yes. Undefined changes to Left to Right, then to Divergence Zone, then to Right to Left. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Bellingham silty clay loam (014). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental till, Fraser-age.	Reach may contain the following species: smelt, sand lance, rock sole	Reach may contain the following habitats and site specifics: lagoons, shellfish spawning, rearing, and harvesting areas, smelt/sandlance and rocksole spawning beaches. This reach is characterized by residential development on the shoreline, with areas of clearing.	residential, undeveloped, aquatic	Residential LAMIRD 1/1	conservancy, rural	None noted	Modifications: piers/docks/boat ramps: yes (9), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no data available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore (far west end) and enhance for majority of reach; Barrier Embayment - Protect High (western reach) and Restore (eastern reach); Coastal Inlet - Protect. High: landslides throughout, gravel, high exposure, high fetch (Herrera and TRPC 2005).	None
West Bay	Budd Inlet	MEL-32-MBU-00	0.78	Shoreline type: Sand and gravel beach, narrow; Sand beach. Slope stability: Stable, and Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Right to Left changes to Left to Right at northern end of reach. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 15 to 30% slopes (052). Bedrock age: Pleistocene and Holocene. Lithology: Continental sedimentary deposits or rocks, Alluvium, Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, rocksole.	Reach may contain the following habitats: shellfish spawning, rearing, and harvesting areas, potential smelt and rocksole spawning areas. Shoreline vegetation is almost entirely residential plantings and cleared areas related to residential parcel use.	residential, undeveloped	Residential LAMIRD 1/1	rural	None noted	Modifications: piers/dock/ boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads continuous throughout the reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: yes (dissolved oxygen), contaminated sediments: no, shellfish harvest ratings: data not available	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Enhance; Coastal Inlet - Restore.	None

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Eld Inlet	Eld Inlet	MEL-19-MEL-20	0.46	Shoreline type: Mud flat. Slope stability: Stable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes. Past landslides: No. Surface Hydrology: Inlet. Associated wetland. Drift cell changes: No change. No appreciable Drift. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Giles silt loam, 0 to 3% slopes (038), Bellingham silty clay loam (014), Giles silt loam, 3 to 15% slopes (039). Bedrock age: Holocene. Lithology: Alluvium.	No species noted.	Reach may contain the following habitats: shorebird foraging and roosting areas, tideflats, saltwater wetlands, estuarine intertidal wetlands. Within this reach, fragmented stands of trees and shrubs border the marine environment and in some areas, development (commercial and residential) extends to the shoreline.	residential, undeveloped, commercial, aquatic	RRR 1/5, RCC	rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. Low: (glacial till), low bluffs (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked a site (Totten Eld Wetland 97) as moderate restoration benefit.	None
Eld Inlet	Eld Inlet	MEL-20-MEL-21	0.25	Shoreline type: Mud flat. Slope stability: Stable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): No. Very little. Past landslides: No. Surface Hydrology: Inlet. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Bellingham silty clay loam (014), Giles silt loam, 3 to 15% slopes (039). Bedrock age: Holocene. Lithology: Alluvium.	No species noted.	Reach may contain the following habitats: shorebird foraging and roosting areas, tideflats, estuarine intertidal wetlands. Within this reach, fragmented stands of trees and shrubs border the marine environment and in some areas, development (commercial and residential) extends to the shoreline.	commercial, residential, aquatic	RCC	rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (impervious surface within this reach may exceed 30%); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. Low: (glacial till), low bluffs (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked a site (Totten Eld Wetland 97) as moderate restoration benefit.	Possible archaeological features exist within this reach. This area is characterized by commercial use within shoreline jurisdiction.
Eld Inlet	Eld Inlet	MEL-21-MEL-22	0.15	Shoreline type: Mud flat. Slope stability: Stable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes. Past landslides: No. Surface Hydrology: Inlet. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Giles silt loam, 3 to 15% slopes (039). Bedrock age: Holocene. Lithology: Alluvium.	No species noted.	Reach may contain the following habitats: shorebird foraging and roosting areas, tideflats, estuarine intertidal habitat. The majority of shoreline within the reach is bordered by continuous tree stands.	commercial, residential, aquatic	RCC	rural	Heritage Trail (private land with known public access)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	None noted	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. Low: (glacial till), low bluffs (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009).	Possible archaeological features exist within this reach.

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Eld Inlet	Eld Inlet	MEL-22-MEL-23	1.92	Shoreline type: Mud flat. Slope stability: Stable and Modified. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes. Very little. Past landslides: Yes. Surface Hydrology: Inlet. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Giles silt loam, 3 to 15% slopes (039), Giles silt loam, 0 to 3% slopes (038),Bellingham silty clay loam (014), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Everett very gravelly sandy loam, 0 to 3% slopes (032), McKenna gravelly silt loam, 0 to 5% slopes (065), Kapowsin silt loam, 3 to 15% slopes. Bedrock age: Holocene and Pleistocene. Lithology: Alluvium and Continental glacial drift, Fraser-age.	No species noted.	Reach may contain the following habitats: shorebird foraging and roosting areas, lagoon and estuarine areas, sloughs, wetlands and associated buffers, salt marshes, salt meadows, brackish marshlands. Shoreline vegetation within this reach varies from tree stands to shrub-scrub, to emergent wetland species. Agricultural use extends to the shoreline in some parts of the reach. In areas not used for agriculture, there is little development or clearing of natural vegetation.	residential, agriculture, undeveloped	RRR 1/5	rural, conservancy	Public access within the reach: roads (Highway 101, Mud Bay Rd NW) Shoreline public access is available surrounding the Highway 101 and Mud Bay Road bridge crossings of Mud Bay.	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (2), bridges: yes (Highway 101 and Mud Bay Rd each cross the inlet via bridge within this reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. Low: (glacial till), low bluffs (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked two wetland sites (Totten Eld Wetland 97 and 200) as moderate restoration benefit and four riparian sites (87, 88, 90, 223) as low (223) and moderate (88, 89, 90).	Possible archaeological features exist within this reach.
Eld Inlet	Eld Inlet	MEL-23-MEL-24	0.13	Shoreline type: Mud flat. Slope stability: Stable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes. Past landslides: No. Surface Hydrology: Stream mouth. Associated wetlands. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Everett very gravelly sandy loam, 0 to 3% slopes (032), Bellingham silty clay loam (014). Bedrock age: Holocene. Lithology: Alluvium.	Reach may contain the following species: chum, resident cutthroat, searun cutthroat, coho	Reach may contain the following habitats: anadromous fish spawning habitat (chum), wetlands and associated buffers, salt marshes, salt meadows, brackish marshlands. Vegetation is primarily scrub-shrub and emergent wetland species. The vegetation has been slightly modified by agriculture. Vegetative stands, including some trees, are found between agricultural lands and the shoreline.	residential, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. Low: (glacial till), low bluffs (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked two wetland sites (Totten Eld Wetland 200, 146) as moderate restoration benefit, one wetland site (Totten Eld Wetland 98) ranked as low restoration benefit, one riparian site (Totten Eld Riparian 172) ranked as low restoration benefit.	This reach extends south from the MEL-23 reach break point until MCL-0 (the start of Riverine reaches), and then north to the MEL-24 reach break point. There is a water quality monitoring site and a stream flow monitoring site for Mclane Creek within this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Green Cove Creek	Eld Inlet	MEL-24-MEL-25	4.76	Shoreline type: Mud flat and Sand Beach. Slope stability: Stable, Modified, and Intermediate. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes, small areas. Past landslides: No. Surface Hydrology: Inlet. Associated wetlands. Pocket estuary. 100-year floodplain. Potential CMZ extending beyond 100-year floodplain. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Bellingham silty clay loam (014), Giles silt loam, 3 to 15% slopes (039), Alderwood gravelly sandy loam, 0 to 3% slopes (001), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Alderwood gravelly sandy loam, 15 to 30% slopes (003),Gravel pits (085), Xerorthents, 0 to 5% slops (125), McKenna gravelly silt loam, 0 to 5% slopes (065). Bedrock age: Holocene and Pleistocene. Lithology: Alluvium, Advance continental glacial outwash, Continental glacial drift, Fraser-age.	Reach may contain the following species: great blue heron, osprey, purple martin, chum, coho	Reach may contain the following habitats: shorebird foraging and roosting areas, lagoon and estuarine areas, sloughs, wetlands (and associated buffers), salt marshes, salt meadows, brackish marshlands. Shoreline vegetation within this reach is comprised of either marshland/emergent plants or wide stands of trees for the majority of the reach, although agricultural use/clearing extends to the shoreline in some locations. There is minimal development within shoreline jurisdiction.	residential, undeveloped, commercial, aquatic, timber-forest, agriculture, open space	R 1/10, RRR 1/5	conservancy	Public access within the reach: roads and bridges (Highway 101 and Mud Bay Road bridge crossings of Mud Bay). Buzz's Tavern is private land with known public access as a customer of the restaurant. Capitol Land Trust South Eld Inlet Property - private land with known public access through Capitol Land Trust.	Modifications: piers/docks/boat ramps: yes (5), grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: yes (2), bridges: yes (Highway 101 and Mud Bay Rd each cross the inlet via bridge within this reach), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	DAU_Id 237, 219, 197, 184, 170 are considered "at-risk" for the movement of water, heat, and habitat connectivity, "not properly functioning" for the movement of wood, and "properly functioning" for the movement of sediment. DAU_Id 226, 205, 167 are considered "at-risk" for the movement of water, wood, habitat connectivity, heat, and sediment (except 167 which is considered "properly functioning" for the movement of sediment). (TCGDRS, 2009). Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. bridges, roads, ag use. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. Low: (glacial till), low bluffs (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009, ranked five wetland sites and four riparian sites total in this reach. One riparian site (Totten Eld Riparian 92) was ranked as high restoration benefit, two wetland sites (Totten Eld Wetland 146, 102) ranked as moderate restoration benefit, one wetland site (Totten Eld Wetland 98, 103, 253) ranked as low restoration benefit, one riparian site (Totten Eld Riparian 93) was ranked as moderate restoration benefit, and two riparian sites (Totten Eld Riparian 95 and 115) ranked as low restoration benefit.	Possible archaeological features exist within this reach. Allison Springs Rearing Pond (owned by WDFW) is located within this reach. Several large private conservation parcels in this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
1	Eld Inlet	MEL-25-MEL-26	1.65	Shoreline type: Sand Beach. Slope stability: Unstable and Intermediate. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: One small associated wetland. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Alderwood gravelly sandy loam, 15 to 30% slopes (003), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Indianola loamy sand, 15 to 30% slopes (048), Hoogdal silt loam, 15 to 30% slopes (043). Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age, Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: osprey, surf smelt, harbor seal, purple martin	Reach may contain the following habitats: osprey nesting habitat, harbor seal haulout, shorebird foraging and roosting area. The majority of shoreline within this reach is heavily forested. Some small areas of residential parcels are cleared to the shoreline, often associated with bulkheads.	residential, undeveloped, agriculture, aquatic	RRR 1/5, RL 1/1	conservancy, rural	None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: yes (Brenner Rd NW, which parallels shoreline mid-reach, has several culverts associated with it that are within jurisdiction, but not within Eld Inlet proper), dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: yes, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Fish Barriers may alter hydrology and habitat access. Impacts may include: altered flow and habitat function, reduced habitat access, habitat fragmentation, reduction in fish populations, and loss of native species. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes. Aquaculture may result in altered sediment transport, hydrologic regimes and habitat. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. High: glacial till, moderate bluff height, frequent landslides, mature forest (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation in the mid-section of the reach, and appropriate for restoration in the northern section of the reach (Squaxin Island Tribe, 2009).	Brenner Rd NW crosses Thurston County jurisdiction in several places within this reach.
Eld Inlet	Eld Inlet	MEL-26-MEL-27	1.16	Shoreline type: Sand beach; Sand flat. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes, primarily in northern half of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Simmons Creek flows into Eld Inlet. Stream mouth. Drift cell changes: Yes. No Appreciable Drift changes to Right to Left, then to Undefined, then to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Alderwood gravelly sandy loam, 15 to 30% slopes (003), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Skipopa silt loam, 3 to 15% slopes (108), Skipopa silt loam, 0 to 3% slopes (107), Giles silt loam, 15 to 30% slopes (040), Dystric Xerochrepts, 60 to 90% slopes (030).	Reach may contain the following species: purple martin, smelt, osprey	Reach may contain the following habitats: coastal salt marsh, salt meadow, wetlands and associated buffers. The majority of shoreline within this reach is heavily forested. Some small areas of residential parcels are cleared to the shoreline, often associated with bulkheads.	residential, undeveloped, aquatic, utility	RRR 1/5, RL 1/1	conservancy, rural	None noted	Modifications: piers/docks/boat ramps: yes (8), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, yes, Nationwide 48 permits, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	DAU_Id 128 and 142 are considered "at-risk" for the movement of water, heat, and habitat connectivity, "not properly functioning" for the movement of wood, and "properly functioning" for the movement of sediment. (TCGDRS, 2009) Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering,	PSNERP Strategies: Beach - Restore High; Barrier Embayment - Restore; Coastal Inlet - Protect. Low: low elevation, (Vashon till) (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon in the southern section of the reach (Squaxin Island Tribe, 2009). TCGDRS, 2009, ranked one riparian site (Totten Eld Riparian 112) as low restoration benefit.	Simmons Rd NW crosses Thurston County jurisdiction within this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial drift, Fraser-age.								erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Aquaculture may result in altered sediment transport, hydrologic regimes and habitat. Water quality within this reach is impacted (Ecology 303d list).		
Eld Inlet	Eld Inlet	MEL-27-MEL-28	0.70	Shoreline type: Sand flat; Sand Beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, large areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Inlet, stream mouth, and associated wetlands. Drift cell changes: Yes. Right to Left changes to Undefined. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Giles silt loam, 15 to 30% slopes (040), Giles silt loam, 0 to 3% slopes (038), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Lithology:	Reach may contain the following species: purple martin, smelt, rocksole, bald eagle, chum, coho.	Reach may contain the following habitats: coastal salt marsh, salt meadow, brackish marshland, estuarine zones, wetlands (and associated buffers). This reach is heavily forested and unmodified.	commercial	RRR 1/5	conservancy	Public access within the reach: government land (Evergreen State College Land)	Modifications: piers/docks/boat ramps: yes(1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	DAU_Id 125 is considered "at-risk" for the movement of water, and "properly functioning" for habitat connectivity and the movement of sediment. DAU_Id 115 is considered "at-risk" for the movement of water, wood, heat, and habitat connectivity, and "properly functioning for the movement of sediment. DAU_Id 116 is considered "at-risk" for the movement of water, sediment, and heat, and "properly functioning" for habitat connectivity and the movement of wood. (TCGDRS, 2009). Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore High; Barrier Embayment - Restore; Coastal Inlet - Protect. Low: low elevation, (Vashon till), low bluff, (glacial till), small fetch; steep bluff, many landslides, mature vegetation, (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation in the northern half of the reach (Squaxin Island Tribe, 2009). TCGDRS, 2009, ranked Totten Eld Riparian 112 as high restoration benefit, and Totten Eld Riparian 109, Totten Eld Wetland 215 and 232 as low restoration benefit.	The entire reach is part of Evergreen State College lands.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Eld Inlet	Eld Inlet	MEL-28-MEL-29	1.72	Shoreline type: Sand flat; Sand Beach. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Inlet and stream mouth at both ends of reach. Drift cell changes: Yes. Undefined changes to Right to Left, then to Undefined. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, rocksole, bald eagle, purple martin, harbor seal, chum, coho, steelhead, coastal cutthroat.	Reach may contain the following habitats: estuarine zones, wetlands and associated buffers, harbor seal haulout sites. Within this reach, fragmented stands of trees and shrubs border the marine environment and in many areas residential development extends to the shoreline.	residential, undeveloped, aquatic	Residential LAMIRD 1/1, Residential LAMIRD 1/2	rural, conservancy	None noted	Modifications: piers/docks/boat ramps: yes (12), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Restore High; Barrier Embayment - Restore; Coastal Inlet - Protect. Low: low bluff, (glacial till), small fetch (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration in a section of the southern reach and appropriate for conservation in the northern half of the reach (Squaxin Island Tribe, 2009). TCGDRS, 2009, ranked Totten Eld Riparian 107, 105, and 104 as low restoration benefit.	Green Park Community Club is located near the eastern reach break and is a privately owned community beach available to members of the private community.
Green Cove Creek	Eld Inlet	MEL-29-MEL-30	0.15	Shoreline type: Sand flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Green Cove Creek flows into inlet. Drift cell changes: No change. Undefined. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, rocksole, bald eagle, purple martin, harbor seal, chum, coho, steelhead, coastal cutthroat.	Reach may contain the following habitats: coastal salt marsh, salt meadow, estuary, wetlands and associated buffers, harbor seal haulouts. This reach is heavily forested.	other - cultural	Residential LAMIRD 1/1, RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect. Low: low bluff, (glacial till), small fetch (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009, ranked Totten Eld Riparian 130 as low restoration benefit.	Green Park Community Club is a privately owned community beach available to members of the private community.A Green Cove Creek water quality gauge is located within the creek in this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Eld Inlet	Eld Inlet	MEL-30-MEL-31	3.75	Shoreline type: Sand flat; Sand Beach. Slope stability: Unstable, Intermediate, Stable, Enclosed Water. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Southern inlet contains mouth of Green Cove Creek. Inlet at north end of reach. Small unnamed stream mouths in middle reach. Pocket estuary with delta fan in middle of reach. Drift cell changes: Yes. Undefined changes to Left to Right, then to Divergence Zone, then to Right to Left. High groundwater hazard: Yes. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Kapowsin silt loam, 3 to 15% slopes (051), Kapowsin silt loam, 15 to 30% slopes (052), Kapowsin silt loam, 30 to 50% slopes (053), Skipopa silt loam, 3 to 15% slopes (108), Indianola loamy sand, 3 to 15% slopes (047), Everett very gravelly sandy loam, 15 to 30% slopes (034), Bellingham silty clay loam (014). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial drift, Fraser-age, Continental glacial till, Fraser-age, Continental sedimentary deposits or rocks.	Reach may contain the following species: smelt, sand lance, rocksole, bald eagle, purple martin, harbor seal, chum, coho, steelhead, coastal cutthroat.	Reach may contain the following habitats: estuaries, lagoon, harbor seal haulouts. Within this reach, fragmented stands of trees and shrubs border the marine environment and in some areas residential development extends to the shoreline.	residential, undeveloped, aquatic	RRR 1/5, Residential LAMIRD 1/1	rural, conservancy	None noted	Modifications: piers/docks/boat ramps: yes (14), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads throughout the reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - Restore. High: glacial outwash, landslides throughout, high bluff, (no littoral), trees at toe of bluff; glacial till, low cohesion, moderate bluff, much overhanging veg (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation in segments of the reach(Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked four riparian sites (103, 102, 99, 98) and two wetland site (293 and 294) as low restoration benefit.	None
Eld Inlet	Eld Inlet	MEL-31-MEL-32	0.46	Shoreline type: Sand beach. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: No. Surface Hydrology: None. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Skipopa silt loam, 0 to 3% slopes (107), Bellingham silty clay loam (014). Bedrock age: Pleistocene and Holocene. Lithology: Continental sedimentary deposits or rocks, Alluvium.	Reach may contain the following species: smelt, rock sole	Reach may contain the following habitats: mapped shellfish spawning, rearing, and harvesting areas. Shoreline vegetation is comprised of fragmented stands of trees and shrubs and in some areas residential development extends to the shoreline.	residential, undeveloped, aquatic	Residential LAMIRD 1/1, RRR 1/5	rural	None noted	Modifications: piers/dock/ boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads continuous throughout the reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: yes (dissolved oxygen), contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - None.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Henderson	Henderson Inlet	MBU-21-MHE-00	0.40	Shoreline type: Sand flat; Sand and gravel flat or fan. Slope stability: Stable and Intermediate. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: No. Surface Hydrology: Inlet and stream mouth with pocket estuary on west end of reach. Drift cell changes: Yes. Right to Left changes to Left to Right, then to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Bellingham silty clay loam (014). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	No species noted.	Reach may contain the following habitats and site specifics: lagoons, shellfish spawning, rearing, and harvesting areas. This reach is characterized by residential development of the shoreline, with areas of clearing and non-native vegetation.	residential, undeveloped	Residential LAMIRD 1/1	rural	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: no data available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Restore; Coastal Inlet - Protect.	The eastern portion of this reach falls within the Henderson Inlet Shellfish Protection District.
Henderson	Henderson Inlet	MHE-00-MHE-01	0.30	Shoreline type: Sand and gravel flat or fan; Sand flat. Slope stability: Intermediate. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Divergence Zone changes to Right to Left. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Bellingham silty clay loam (014). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: smelt	Reach may contain the following habitat and site specifics: shellfish spawning, rearing, and harvesting areas, smelt spawning beaches. This reach is characterized by residential development of the shoreline, with areas of clearing and non-native vegetation.	undeveloped, residential	Residential LAMIRD 1/1	rural	None noted	Modifications: piers/docks/boat ramps: yes (5), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Restore; Coastal Inlet - None. High: Landslide deposits, till, high eroding bluffs, vegetation at toe of bluff (Herrera and TRPC, 2005).	This entire reach falls within the Henderson Inlet Shellfish Protection District.
Henderson	Henderson Inlet	MHE-01-MHE-02	0.75	Shoreline type: Sand flat; Mud flat. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Cuspate Foreland. Drift cell changes: Yes. Right to Left changes to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Bellingham silty clay loam (014), Hoogdal silt loam, 30 to 50% slopes (044), Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, purple martin	Reach may contain the following habitats and site specifics: estuary zones, shellfish spawning, rearing, and harvesting areas, smelt spawning beaches. This reach is characterized by residential development of the shoreline, with areas of clearing and non-native vegetation.	undeveloped, residential	RRR 1/5, Residential LAMIRD 1/2	rural, conservancy	None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: yes (structures); Water quality: 303(d) list: yes (dissolved oxygen), contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - None; Coastal Inlet - None. High: Landslide deposits, till, high eroding bluffs, vegetation at toe of bluff (north half of reach); Low (south half of reach).	This entire reach falls within the Henderson Inlet Shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Henderson	Henderson Inlet	MHE-02-MHE-03	0.85	Shoreline type: Mud flat. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes, much of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Left to Right changes to No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Hoogdal silt loam, 30 to 50% slopes (044), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, purple martin, bald eagle, great blue heron, great gray owl, osprey, harbor seal	Reach may contain the following habitat and site specifics: estuary, harbor seal haulouts. This reach is characterized by residential development of the shoreline, with areas of clearing and non-native vegetation and fragmented forest stands.	undeveloped, residential	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: yes (11), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: yes (structures); Water quality: 303(d) list: yes (dissolved oxygen), contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enhance; Barrier Embayment - None; Coastal Inlet - Restore High.	This entire reach falls within the Henderson Inlet Shellfish Protection District. Railed-pier extends across inlet into this reach.
Henderson	Henderson Inlet	MHE-03-MHE-04	0.97	Shoreline type: Mud flat. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Tidal Inlet. One stream flows in on western edge of reach. Drift cell changes: No. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Hoogdal silt loam, 30 to 50% slopes (044), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: purple martin, bald eagle, great blue heron, great gray owl, osprey, harbor seal	Reach may contain the following habitats and site specifics: estuary zones, harbor seal haul outs. Shoreline is heavily forested and undeveloped.	undeveloped, aquatic	PP	conservancy	Public access within the reach: park (Woodard Bay Natural Area which is a WDNR public preserve with known public access)	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	PSNERP Strategies: Beach - None; Barrier Embayment - None; Coastal Inlet - Restore High.	State Public Preserve Woodard bay Natural Area. This entire reach falls within the Henderson Inlet Shellfish Protection District. Railed pier extends across inlet into this reach.
Henderson	Henderson Inlet	MHE-04-MHE-05	0.01	Shoreline type: Mud flat. Slope stability: Intermediate. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Stream mouth drains to tidal inlet. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Hoogdal silt loam, 30 to 50% slopes (044), Kapowsin silt loam, 3 to 15% slopes (051), Skipopa silt loam, 0 to 3% slopes (107). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: purple martin, bald eagle, great blue heron, great gray owl, osprey and clams	Reach may contain the following habitats and site specifics: estuary zone. Reach contains area designated as 100-year floodplain. Shoreline is heavily forested and undeveloped.	residential	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	None noted	PSNERP Strategies: Beach - None; Barrier Embayment - None; Coastal Inlet - Restore High.	This entire reach falls within the Henderson Inlet Shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Henderson	Henderson Inlet	MHE-05-MHE-06	0.21	Shoreline type: Mud flat. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: NO. Hydric soils: Yes. Soil Names: Hoogdal silt loam, 30 to 50% slopes (044), Skipopa silt loam, 0 to 3% slopes (107), Bellingham silty clay loam (014). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: purple martin, bald eagle, great blue heron, great gray owl, osprey and clams	Reach may contain the following habitats and site specifics: estuary zone. Reach contains area designated as 100-year floodplain. Shoreline is heavily forested and undeveloped.	undeveloped, aquatic	PP, RRR 1/5	conservancy	Public access within the reach: park (Woodard Bay Natural Area which is a WDNR public preserve with known public access)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	None noted	PSNERP Strategies: Beach - None; Barrier Embayment - None; Coastal Inlet - Restore High.	State Public Preserve Woodard bay Natural Area. This entire reach falls within the Henderson Inlet Shellfish Protection District.
Henderson	Henderson Inlet	MHE-06-MHE-07	0.04	Shoreline type: Mud flat. Slope stability: Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Stream mouth. Stream flows into tidal inlet. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Hoogdal silt loam, 30 to 50% slopes (044), Skipopa silt loam, 0 to 3% slopes (107). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: purple martin, bald eagle, great blue heron, great gray owl, osprey	Reach may contain the following habitats and site specifics: estuary zone. Reach contains area designated as 100-year floodplain. Shoreline is heavily forested and undeveloped	undeveloped, residential	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	None noted	PSNERP Strategies: Beach - None; Barrier Embayment - None; Coastal Inlet - Restore High.	This entire reach falls within the Henderson Inlet Shellfish Protection District.
Henderson	Henderson Inlet	MHE-07-MHE-08	1.37	Shoreline type: Mud flat; Sand beach. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Two stream mouths. Two streams flow into tidal inlet. Drift cell changes: Yes. No Appreciable Drift changes to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Hoogdal silt loam, 30 to 50% slopes (044), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Indianola loamy sand, 15 to 30% slopes (048). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: purple martin, bald eagle, great blue heron, great gray owl, osprey, harbor seal	Reach may contain the following habitats and site specifics: estuary zones, harbor seal haul outs. Reach contains area designated as 100-year floodplain. Shoreline is heavily forested and entirely undeveloped.	undeveloped, residential, aquatic	RRR 1/5, PP	conservancy	Public access within the reach: park (Woodard Bay Natural Area which is a WDNR public preserve with known public access)	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance and protect; Barrier Embayment - None; Coastal Inlet - Restore High.	State Public Preserve Woodard bay Natural Area. An old abandoned railroad trestle is located on the shoreline within this reach. This entire reach falls within the Henderson Inlet Shellfish Protection District. Railed-pier extends across inlet from this reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Henderson	Henderson Inlet	MHE-08-MHE-09	1.09	Shoreline type: Sand beach; Mud flat. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Tidal Inlet. Drift cell changes: Yes. Right to Left changes to Left to Right, then to Divergence Zone, then to Right to Left, then to No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Hoogdal silt loam, 30 to 50% slopes (044), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Indianola loamy sand, 15 to 30% slopes (048). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: purple martin, bald eagle, great blue heron, great gray owl, osprey, chum, sea-run cutthroat, coho, winter steelhead	Reach may contain the following habitats and site specifics: estuary zone. Reach contains area designated as 100-year floodplain. Shoreline is heavily forested and entirely undeveloped.	undeveloped, residential, aquatic	RRR 1/5, PP	conservancy, natural	Public access within the reach: roads (Woodard Bay Rd NE), Public access within the reach: park (Woodard Bay Natural Area which is a WDNR public preserve with known public access)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: yes (under Woodard Bay Rd NE), dams: no, armoring: yes (bulkheads are associated with the Woodard Bay Rd NE bridge and the old railroad bridge), Facilities: roads: no, bridges: yes (1, see Notes column), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (dissolved oxygen in Woodard Creek), contaminated sediments: no, shellfish harvest ratings: prohibited	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enhance and restore; Barrier Embayment - Restore and protect; Coastal Inlet - Protect High. TCGDRS, 2007, ranked Henderson Floodplain site 18 as high restoration benefit.	This entire reach falls within the Henderson Inlet Shellfish Protection District.
Henderson	Henderson Inlet	MHE-09-MHE-10	0.45	Shoreline type: Mud flat. Slope stability: Intermediate. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: No. Surface Hydrology: Stream mouth. Woodard Creek flows into tidal inlet. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Hoogdal silt loam, 30 to 50% slopes (044), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: purple martin, bald eagle, great blue heron, great gray owl, osprey, chum, searun cutthroat, coho, winter steelhead	Reach may contain the following habitats and site specifics: estuary zones. Reach contains area designated as 100-year floodplain. Shoreline is heavily forested.	undeveloped, residential, aquatic	RRR /15	natural	Shoreline public access is indicated by the ArcMap layer, although this reach includes privately owned parcels.	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: , Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (dissolved oxygen in Woodard Creek), contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - None; Barrier Embayment - Protect; Coastal Inlet - Protect High. TCGDRS, 2007, ranked Henderson Floodplain site 18 as high restoration benefit.	This entire reach falls within the Henderson Inlet Shellfish Protection District.
Henderson	Henderson Inlet	MHE-10-MHE-11	1.46	Shoreline type: Mud flat; Sand beach. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Two stream mouths. Woodard Creek and a second creek flow into tidal inlet. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Hoogdal silt loam, 30 to 50% slopes (044), Skipopa silt loam, 3 to 15% slopes (108), Yelm fine sandy loam, 3 to 15% slopes (127), Indianola loamy sand, 3 to 15% slopes (047). Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial till, Fraser-age, Alluvium.	Reach may contain the following species: purple martin, bald eagle, great blue heron, great gray owl, osprey, chum, searun cutthroat, coho, winter steelhead	Reach may contain the following habitats and site specifics: estuary zone. Reach contains area designated as 100-year floodplain. Shoreline is heavily forested and entirely undeveloped.	undeveloped, aquatic	RRR 1/5, PP	natural, conservancy	Public access within the reach: roads (Woodard Bay Rd NE), park (Woodard Bay Natural Area which is a WDNR public preserve with known public access)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are associated with the Woodard Bay Rd NE bridge and the old railroad bridge), Facilities: roads: no, bridges: yes (1), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (dissolved oxygen in Woodard Creek), contaminated sediments: no, shellfish harvest ratings: prohibited	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - None; Barrier Embayment - Protect; Coastal Inlet - Protect High. Identified as beneficial to all juvenile salmon and appropriate for restoration in eastern reach (Squaxin Island Tribe, 2009). TCGDRS, 2007, ranked Henderson Floodplain site 18 as high restoration benefit.	This entire reach falls within the Henderson Inlet Shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Henderson	Henderson Inlet	MHE-11-MHE-12	1.80	Shoreline type: Sand beach. Slope stability: Stable. Steep slopes (>=40% slope): Yes, occasionally. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Four stream mouths including Meyer Creek flow into Henderson Inlet. Associated wetlands. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Hoogdal silt loam, 15 to 30% slopes (043), Skipopa silt loam, 3 to 15% slopes (108), Yelm fine sandy loam, 3 to 15% slopes (127), Indianola loamy sand, 3 to 15% slopes (047), Indianola loamy sand, 0 to 3% slopes (047), Bellingham silty clay loam (014), Hydraquents, tidal (045). Bedrock age: Holocene and Pleistocene. Lithology: Continental glacial till, Fraser-age, Alluvium.	Reach may contain the following species: purple martin, bald eagle, great blue heron, great gray owl, osprey	Reach may contain the following habitats and site specifics: estuary zones, coastal salt marsh, salt meadows, brackish marshes, wetlands and associated buffers (southern half of reach). The shoreline exhibits fragmented forest with some intact tree stands, as well as areas of clearing for residential and park use.	residential, undeveloped, aquatic, agriculture, parks	RRR 1/5	Conservancy	Public access within the reach: parks (Woodard Bay Natural Area extends for north half of reach). Government land with no known public access (Henderson Inlet Washington State University property). Snug Harbor Community Beach is a privately owned community beach with access for members of private community.	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads within reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: conditional - temporary closures	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - None; Barrier Embayment - Protect; Coastal Inlet - Protect High. Identified as beneficial to all juvenile salmon and appropriate for restoration in the northern half and far southern section of reach, and appropriate for conservation in the southern half of reach (Squaxin Island Tribe, 2009). TCGDRS, 2007, ranked Henderson Wetland sites 277, 33, and 41 as low environmental benefit for restoration. TCGDRS, 2007, noted that all three sites warrant consideration as preservation sites.	A water quality gauge falls within jurisdiction at the mouth of Meyer Creek. This entire reach falls within the Henderson Inlet Shellfish Protection District. Restoration opportunity to revegetate.
Henderson	Henderson Inlet	MHE-12-MHE-13	0.53	Shoreline type: Sand beach; Mud flat. Slope stability: Stable. Steep slopes (>=40% slope): Yes, very small area. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Skipopa silt loam, 3 to 15% slopes (108), Skipopa silt loam, 0 to 3% slopes (107). Bedrock age: Holocene and Pleistocene. Lithology: Continental glacial till, Fraser-age, Alluvium.	No species noted.	Reach may contain the following habitats and site specifics: estuary. The shoreline within this reach is characterized by residential development, with areas of clearing and non-native vegetation and fragmented forest stands.	residential, undeveloped, aquatic, agriculture	Residential LAMIRD 1/2	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (9), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads within reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	PSNERP Strategies: Beach - None; Barrier Embayment - Protect; Coastal Inlet - Protect High. Identified as beneficial to all juvenile salmon and appropriate for restoration throughout the reach (Squaxin Island Tribe, 2009).	This entire reach falls within the Henderson Inlet Shellfish Protection District. Shellfish facility.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Henderson	Henderson Inlet	MHE-13-MHE-14	1.30	Shoreline type: Mud flat. Slope stability: Stable. Steep slopes (>=40% slope): Yes, very small areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Many associated wetlands. Woodard Creek mouth flows into Henderson Inlet. Four other stream mouths flow into Henderson Inlet. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Hoogdal silt loam, 15 to 30% slopes (043), Skipopa silt loam, 3 to 15% slopes (108), Skipopa silt loam, 0 to 3% slopes (107), Kapowsin silt loam, 15 to 30% slopes (052), Mukilteo muck (069), Bellingham silty clay loam (014). Bedrock age: Holocene and Pleistocene. Lithology: Continental glacial till, Fraser-age, Alluvium, Continental glacial outwash, sand, Fraser-age.	No species noted.	Reach may contain the following habitats and site specifics: estuary zones, wetlands and associated buffers (throughout reach). Shoreline contains forest cover in some areas and clearing for agricultural or residential use in others.	residential, undeveloped, aquatic, agriculture	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: **prohibited**	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	PSNERP Strategies: Beach - None; Barrier Embayment - Protect; Coastal Inlet - Protect High. TCGDRS, 2007, ranked Henderson Wetland sites 273, 210, and 208, as low environmental benefit for restoration, and Wetland site 274 as moderate environmental benefit for restoration.	This entire reach falls within the Henderson Inlet Shellfish Protection District. Restoration opportunity to revegate wetlands in cleared areas.
Henderson	Henderson Inlet	MHE-14-MHE-15	3.30	Shoreline type: Mud flat; Sand beach. Slope stability: Stable and Intermediate. Steep slopes (>=40% slope): Yes, small areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Many associated wetlands including estuarine wetlands. Woodard Creek mouth flows into Henderson Inlet. Three other stream mouths flow into Henderson Inlet. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Skipopa silt loam, 3 to 15% slopes (108), Distric Xerochrepts, 60 to 90% slopes (030), Hydraquents, tidal (045), Kapowsin silt loam, 3 to 15% slopes (051), Kapowsin silt loam, 15 to 30% slopes (052), Bellingham silty clay loam (014), Skipopa silt loam, 0 to 3% slopes (107), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Hoogdal silt loam, 30 to 50% slopes (044). Bedrock age: Holocene and Pleistocene. Lithology: Continental glacial outwash, sand, Fraser-age, Continental glacial till, Fraser-age, Alluvium.	Reach may contain the following species: osprey, fall chum, coho	Reach may contain the following habitats and site specifics: estuary zones, wetlands and associated buffers (throughout reach), coastal salt marshes and brackish marshes. The shoreline exhibits stands of undeveloped forest as well as areas cleared for agriculture.	residential, undeveloped, aquatic, agriculture, open space	RRR 1/5, PP, Residential LAMIRD 1/2	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (4), grois/jetties: no, culverts: yes (there is a culvert associated with Johnson Pt Rd NE in the southern half of the reach, which falls within jurisdiction but does not connect to the Inlet proper), dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: yes, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Agriculture has reduced shoreline vegetation which may alter sediment transport, hydrologic regimes, and habitat. May include impacts to: erosion/bank stability, flow energy, water quality/ temperature/ storage, recruitment/ transport of woody/ organic debris and sediment, habitat, and flooding regimes.	PSNERP Strategies: Beach - None; Barrier Embayment - Protect; Coastal Inlet - Protect High. Identified as beneficial to all juvenile salmon in northern section of reach (Squaxin Island Tribe, 2009). TCGDRS, 2007, ranked Henderson Wetland sites 222 and 39 as low restoration benefit. Additionally, Riparian sites 86, 31, 125 ranked as high restoration benefit. Wetland sites 222 and 39 are both noted as deserving consideration as preservation sites. Riparian sites 86, 31, 125 are all on a local restoration prioritization list.	This entire reach falls within the Henderson Inlet Shellfish Protection District. Several large private conservation parcels are within this reach. Restoration opportunity to revegetate in cleared areas.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Henderson	Henderson Inlet	MHE-15-MHE-16	0.87	Shoreline type: Sand beach. Slope stability: Unstable, Unstable-recent slide, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. No Appreciable Drift changes to Left to Right, then to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Skipopa silt loam, 3 to 15% slopes (108), Hoogdal silt loam, 15 to 30% slopes (043), Distric Xerochrepts, 60 to 90% slopes (030), Everett very gravelly sandy loam, 3 to 15% slopes (033). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, rocksole, osprey	Reach may contain the following habitats and site specifics: estuary zones, smelt and rocksole spawning beaches. The shoreline exhibits stands of undeveloped forest as well as areas cleared for residential use.	residential, undeveloped, aquatic, utilities	Residential LAMIRD 1/1, RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (7), grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited and conditional - temporary closures	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet - Protect High. Low prioritity for sediment source preservation (Herrera and TRPC, 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration (Squaxin Island Tribe, 2009).	This entire reach falls within the Henderson Inlet Shellfish Protection District.
Henderson	Henderson Inlet	MHE-16-MHE-17	0.59	Shoreline type: Sand beach. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Stream mouth flows into inlet. Associated wetland. Drift cell changes: Yes. Divergence Zone changes to Right to Left, then to Left to Right, then to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Kapowsin silt loam, 3 to 15% slopes (051), Skipopa silt loam, 3 to 15% slopes (108), Distric Xerochrepts, 60 to 90% slopes (030), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, coastal cutthroat, osprey	Reach may contain the following habitats and site specifics: estuary zone, freshwater wetland, stream. Reach is mostly forested on the shoreline.	residential, undeveloped, aquatic	Residential LAMIRD 1/1, RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: conditional - temporary closures	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet - Protect. Low (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration in a small section of the southern reach (Squaxin Island Tribe, 2009).	A fish passage barrier exists at the outlet of the unnamed stream into Henderson Inlet. This entire reach falls within the Henderson Inlet Shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Henderson	Henderson Inlet	MHE-17-MHE-18	0.33	Shoreline type: Sand beach; Organics/fines. Slope stability: Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Both ends of reach are at the mouth of inlets. Drift cell changes: Yes. Divergence Zone changes to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Distric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, rocksole	Reach may contain the following habitat: smelt and rocksole spawning beaches. The shoreline within this reach is characterized by residential development, with areas of clearing and non-native vegetation.	residential, undeveloped, aquatic	Residential LAMIRD 1/1	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are continuous throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structure, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: conditional - temporary closures	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Restore; Coastal Inlet - None. Low (Herrera and TRPC 2005)	This entire reach falls within the Henderson Inlet Shellfish Protection District.
Henderson	Henderson Inlet	MHE-18-MHE-19	0.41	Shoreline type: Organics/fines. Slope stability: Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: No. Surface Hydrology: Reach is tidal inlet. Stream mouth flows into tidal inlet. Pocket estuary. Drift cell changes: Yes. Right to Left changes to Undefined, then to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Distric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, rocksole.	Reach may contain the following habitats and site specifics: lagoons, pocket estuary, stream. The southern portion of this reach is characterized by residential development, with areas of clearing and non-native vegetation. The northern half of the inlet shoreline supports relatively unfragmented forest.	residential, undeveloped	Residential LAMIRD 1/1	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkhead), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect. Low prioritity for sediment source preservation. Identified as a general preservation site (Herrera and TRPC, 2005).	This entire reach falls within the Henderson Inlet Shellfish Protection District.
Henderson	Henderson Inlet	MHE-19-MHE-20	0.46	Shoreline type: Organics/fines; Sand beach. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Left to Right changes to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Distric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051), Alderwood gravelly sandy loam, 15 to 30% slopes (003). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, rocksole.	Reach may contain the following habitat and site specifics: shellfish spawning, rearing, and harvesting areas, smelt and rocksole spawning areas. Shoreline is mostly forested, with occasional clearing for residential use.	residential, undeveloped, aquatic	Residential LAMIRD 1/1	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore and enhance; Barrier Embayment - Restore; Coastal Inlet - Protect. Low (Herrera and TRPC 2005)	This entire reach falls within the Henderson Inlet Shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Henderson	Henderson Inlet	MHE-20-MHE-21	1.09	Shoreline type: Sand beach. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes, in small areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Divergence Zone changes to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Distric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, rocksole.	Reach may contain the following habitat: shellfish spawning, rearing, and harvesting areas, smelt and rocksole spawning beaches. Wetlands and associated buffers are present in the northern half of this reach. The shoreline vegetation is mostly unmodified, with some areas of clearing for residential use.	residential, undeveloped, aquatic	RRR 1/5, Residential LAMIRD 1/2	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (dissolved oxygen offshore), contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None. Low (Herrera and TRPC 2005)	This entire reach falls within the Henderson Inlet Shellfish Protection District.
Henderson	Henderson Inlet	MHE-21-MHE-22	1.85	Shoreline type: Sand beach; Sand flat. Slope stability: Stable, Unstable, and Unstable-recent slide. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes, in middle third of reach. Surface Hydrology: Two stream mouths deliver sediment to beach. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Distric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, rocksole, sandlance	Reach may contain the following habitat and site specifics: shellfish spawning, rearing, and harvesting areas, smelt/sandlance and rocksole spawning areas. The shoreline is characterized by residential use, with areas of clearing, residential plantings, and non-native vegetation.	residential, undeveloped, aquatic	Residential LAMIRD 1/1, Residential LAMIRD 1/2	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures, pavement); Water quality: 303(d) list: yes (dissolved oxygen offshore), contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None. High (north portion of reach): beach deposits, high bluffs, low cohesion, high wave energy (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration in a two small sections of the reach (Squaxin Island Tribe, 2009).	This entire reach falls within the Henderson Inlet Shellfish Protection District.
Nisqually Reach	Henderson Inlet	MHE-22-MNI-00	0.09	Shoreline type: Sand beach. Slope stability: Stable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes, very small area. Past landslides: No. Surface Hydrology: None. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental sedimentary deposits or rocks.	Reach may contain the following species: smelt, sand lance, rocksole	Reach may contain the following habitat and site specifics: smelt/sandlance and rocksole spawning beaches, shellfish spawning, rearing, and harvesting areas. Reach is characterized by intense residential development with no natural vegetation on the shoreline.	residential, undeveloped	Residential LAMIRD 1/1	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None. High: beach deposits, high bluffs, low cohesion, high wave energy (Herrera and TRPC 2005)	This reach falls entirely within the Nisqually and Henderson Inlet Shellfish Protection Districts.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually Reach	Nisqually Reach	MNI-00-MNI-01	0.58	Shoreline type: Sand beach. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Right to Left changes to Left to Right. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental sedimentary deposits or rocks.	Reach may contain the following species: smelt, herring, sand lance, rocksole	Reach may contain the following habitat: shellfish spawning, rearing, and harvesting areas, smelt/sandlance and rocksole spawning beaches. Shoreline vegetation includes fragmented and unfragmented tree stands shoreward of areas utilized for residential use as well as areas of undeveloped land.	Residential, Undeveloped	Residential LAMIRD 1/1	conservancy, rural	None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along the majority of the reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None. High: beach deposits, high bluffs, low cohesion, high wave energy; Landslide deposits, low cohesion, high bluff, littoral connection, fetch, trees; Pre-vashon sand or finer, has some landslides (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.
Nisqually Reach	Nisqually Reach	MNI-01-MNI-02	0.26	Shoreline type: Sand beach; Sand flat. Slope stability: Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Stream mouth flows into tidal inlet. Pocket estuary. Drift cell changes: Yes. Left to Right changes to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age.	Reach may contain the following species: herring, smelt, rocksole.	Reach may contain the following habitat and site specifics: shellfish spawning, rearing, and harvesting areas, smelt and rocksole spawning beaches. Shoreline vegetation is comprised of unfragmented forest cover for the entire inlet.	residential	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are found within the northern half of the reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None. High: landslide deposits, low cohesion, high bluff, littoral connection, fetch, trees (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.
Nisqually Reach	Nisqually Reach	MNI-02-MNI-03	0.19	Shoreline type: Sand beach. Slope stability: Stable, Intermediate, and Modified. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Divergence Zone changes to Right to tLeft. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: herring, smelt, rocksole.	Reach may contain the following habitat and site specifics: shellfish spawning, rearing, and harvesting areas, smelt and rocksole spawning beaches. Shoreline vegetation consists largely of residential plantings, with most of the reach cleared for residential use. Very little natural vegetation is apparent.	residential, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are continuous within the southern half of the reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - Protect. Low (Herrera and TRPC 2005)	This reach falls entirely within the Nisqually shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually Reach	Nisqually Reach	MNI-03-MNI-04	0.24	Shoreline type: Sand beach; Organics/fines. Slope stability: Modified, Intermediate, and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Estuarine wetland at south end of reach where inlet begins. Drift cell changes: Yes. Right to Left changes to Undefined. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age.	Reach may contain the following species: herring, rock sole	Reach may contain the following habitat and site specifics: lagoon, estuarine wetlands, shellfish spawning, rearing, and harvesting areas. Shoreline vegetation consists largely of residential plantings, with most of the reach cleared for residential use. One parcel appears undeveloped, dominated by natural vegetation (mostly forest).	Transportation, Residential	RRR 1/5	conservancy	Public access within the reach: private marina with known public access and motorboat launch (Zittel's Marina)	Modifications: piers/docks/boat ramps: yes (associated with marina) (11), groins/jetties: yes (associated with marina), culverts: no, dams: no, armoring: yes (bulkheads are continuous within the northern two-thirds of the reach), Facilities: roads: yes (2, private), bridges: no, railroads: no, marinas: yes (1), utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures, parking); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Groins and jetties may alter hydrologic/ sediment transport. May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Ports or marinas may have an impact on water quality and alter hydrologic/sediment transport. Result in aquatic and nearshore loss of habitat. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. marina, bulkheads, roads, imp surfaces	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore and Protect; Coastal Inlet - Protect. High: Landslide deposits, gravel, sand, littoral connection, high bluff, mod fetch (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation in the southern half of the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District. Foot bridge crossig to sandbar. Zittel's Marina - water-dependent use.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually Reach	Nisqually Reach	MNI-04-MNI-05	0.61	Shoreline type: Organics/fines. Slope stability: Unstable and Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Tidal inlet with estuarine wetlands and extensive associated wetlands. Three stream mouths empty into the tidal inlet. Drift cell changes: No change. Undefined. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Skipopa silt loam, 0 to 3% slopes (107), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Bellingham silty clay loam (014). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age.	Reach may contain the following species: herring, rocksole	Reach may contain the following habitat and site specifics: lagoon, wetlands and associated buffers (extending south to encompass mouth of an unnamed stream at southern portion of inlet, mid-reach). The shoreline is heavily forested for the entire inlet, with little evidence of development.	residential, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet - Protect. High: Landslide deposits, gravel, sand, littoral connection, high bluff, mod fetch (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.
Nisqually Reach	Nisqually Reach	MNI-05-MNI-06	0.74	Shoreline type: Organics/fines; Sand beach. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Small inlet. Drift cell changes: Yes. Undefined changes to Left to Right. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: herring, smelt, sand lance, rock sole	Reach may contain the following habitat and site specifics: lagoon, shellfish spawning, rearing, and harvesting areas, smelt/sandlance and rocksole spawning beaches. The majority of shoreline within this reach is forested, with some clearings due to residential parcel use.	residential, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are almost continuous throughout the reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited in northern reach, approved in southern reach	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet - Protect. High: Landslide deposits, gravel, sand, littoral connection, high bluff, mod fetch (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon throughout the reach and appropriate for conservation at the western end of the reach at the mouth of the inlet (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually Reach	Nisqually Reach	MNI-06-MNI-07	0.45	Shoreline type: Sand flat; Sand and gravel flat or fan. Slope stability: Unstable, Intermediate, Stable, and Enclosed water. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Stream mouth empties into tidal inlet. Pocket estuary. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: herring, smelt, rocksole.	Reach may contain the following habitat and site specifics: slough, shellfish spawning, rearing, and harvesting areas, smelt and rocksole spawning beaches. Shoreline is heavily forested throughout this reach.	residential, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are scattered along shoreline), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet - None. High: landslide deposits, gravel, sand, littoral connection, high bluff, mod fetch (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.
Nisqually Reach	Nisqually Reach	MNI-07-MNI-08	0.92	Shoreline type: Sand and gravel flat or fan; Organics/fines. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Tidal Inlet. Two stream mouths empty into tidal inlet. Extensive associated wetlands. Pocket estuary. Drift cell changes: Yes. Left to Right changes to Divergence Zone, then to Right to Left, then to Undefined, then to Left to Right. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Skipopa silt loam, 0 to 3% slopes (107),Bellingham silty clay loam (014), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age.	Reach may contain the following species: herring, rocksole, smelt.	Reach may contain the following habitat and site specifics: wetlands and associated buffer and lagoon area, shellfish spawning, rearing, and harvesting areas, rocksole spawning beaches. Shoreline vegetation appears largely unmodified, with thick forested stands and only a few small areas of residential clearing.	residential, undeveloped	RRR 1/5	conservancy	None noted	Modifications: piers/docks/boat ramps: yes (2), grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are found near the eastern reach break), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect, Protect High, and Restore; Coastal Inlet - Protect. High: sand, gravel bluffs, near stream, long fetch (but protected) (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually Reach	Nisqually Reach	MNI-08-MNI-09	1.01	Shoreline type: Sand and gravel flat or fan; Sand beach; Sand flat. Slope stability: Unstable, Stable, and Modified. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Two stream mouths deliver sediment to beach via an associated estuarine wetland in a small tidal inlet. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Bellingham silty clay loam (014), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age, Continental sedimentary deposits or rocks.	Reach may contain the following species: herring, smelt, sand lance, rocksole	Reach may contain the following habitat and site specifics: wetlands, slough area, and associated buffers, shellfish spawning, rearing, and harvesting areas, smelt/sandlance and rocksole spawning beaches. Shoreline is cleared by parcel for residential use for most of the reach. Some areas retain minimal tree/forest cover.	residential, undeveloped, transportation, recreation and agriculture	RRR 1/5	conservancy, rural	Public access within the reach: motorboat launch (Puget Marina)	Modifications: piers/docks/boat ramps: yes (associated with Puget Marina) (5), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are found throughout the reach), Facilities: roads: yes (2, private), bridges: no, railroads: no, marinas: yes (1), utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Ports or marinas may have an impact on water quality and alter hydrologic/sediment transport. Result in aquatic and nearshore loss of habitat. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Restore; Coastal Inlet - Protect and Restore. High: sand, gravel bluffs, near stream, long fetch (but protected) (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration throughout the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.
Nisqually Reach	Nisqually Reach	MNI-09-MNI-10	1.11	Shoreline type: Sand beach; Sand flat. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Six stream mouths deliver sediment to beach. Drift cell changes: Yes. Left to Right changes to Divergence Zone, then to Right to Left. High groundwater hazard: No. Limited groundwater concern: Yes, northern half of reach. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Bellingham silty clay loam (014), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental sedimentary deposits or rocks, Advance continental glacial outwash, Fraser-age.	Reach may contain the following species: herring, smelt, sand lance, bald eagle, great blue heron	Reach may contain the following habitat and site specifics: shellfish spawning, rearing, and harvesting areas, smelt and sandlance spawning areas. Some clearing of forest cover is evident along shoreline for the majority of the reach. However, cleared areas are not very wide in diameter or large in size, leaving fragmented forest and partial tree stands throughout the marine boundary of this reach.	residential, undeveloped	Residential LAMIRD 1/2	rural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are found throughout the reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures, pavement); Water quality: 303(d) list: yes (fecal coliform in southern portion of reach), contaminated sediments: no, shellfish harvest ratings: northern half of reach is prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - Restore. Low: silt, little input (Herrera and TRPC 2005)	This reach falls entirely within the Nisqually shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually Reach	Nisqually Reach	MNI-10-MNI-11	0.23	Shoreline type: Sand flat. Slope stability: Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Two stream mouths flow into Nisqually Reach. Associated open water wetlands/lagoon. Pocket estuary. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051), Skipopa silt loam, 3 to 15% slopes (108), Indianola loamy sand 3 to 15% slopes (047). Bedrock age: Pleistocene. Lithology: Advance continental outwash, Fraser-age, Continental glacial till, Fraser-age.	Reach may contain the following species: herring, great blue heron, bald eagle.	Reach may contain the following habitat and site specifics: wetlands and associated buffers (extend south inland from pocket estuary), shellfish spawning, rearing, and harvesting areas. Shoreline is cleared for residential use and most vegetation is comprised of residential plantings	residential	Residential LAMIRD 1/2, RRR 1/5	rural	Public access within the reach: roads (Sandy Point Beach Rd)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are found throughout the reach), Facilities: roads: yes (1), bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures); Water quality: 303(d) list: yes (fecal coliform), contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - None. High: sand and gravel, outwash, high bluff, close to (small) littoral inputs, North facing. (Herrera and TRPC 2005)	This reach falls entirely within the Nisqually shellfish Protection District.
Nisqually Reach	Nisqually Reach	MNI-11-MNI-12	0.53	Shoreline type: Sand flat; Sand beach. Slope stability: Unstable, Unstable-recent slide, and Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Right to Left changes to Left to Right, then to Divergence Zone, then to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051), Indianola loamy sand 3 to 15% slopes (047). Bedrock age: Pleistocene. Lithology: Advance continental outwash, Fraser-age.	Reach may contain the following species: herring, sand lance, great blue heron	Reach may contain the following habitat and site specifics: shellfish spawning, rearing, and harvesting areas, sand lance spawning beaches. Shoreline parcels are utilized for residential use, but most exhibit existing forest on the shoreline proper. Clearing is limited.	residential, undeveloped	RRR 1/5	rural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are found throughout the reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Restore; Coastal Inlet - Protect. High: sand and gravel, outwash, high bluff, close to (small) littoral inputs, North facing. (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation in the southern section of the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually Reach	Nisqually Reach	MNI-12-MNI-13	0.71	Shoreline type: Sand beach; Sand flat. Slope stability: Intermediate and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Stream mouth drains to tidal inlet. Pocket estuary. Drift cell changes: Yes. Right to Left changes to Undefined, then to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Advance continental outwash, Fraser-age, Continental glacial till, Fraser-age, Continental sedimentary deposits or rocks.	Reach may contain the following species: herring, sand lance, bald eagle, great blue heron	Reach may contain the following habitat and site specifics: lagoon area, shellfish spawning, rearing, and harvesting areas, sand lance spawning beaches. Shoreline is heavily forested within this reach.	parks	PP	rural	Public access within the reach: park (Tolmie State Park - open sandy beach)	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: yes, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Restore; Coastal Inlet - Protect. High: sand bluffs, high bluffs, proximity to streams, overhanging vegetation, long fetch (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District. Foot bridge crossig to sandbar.
Nisqually Reach	Nisqually Reach	MNI-13-MNI-14	0.56	Shoreline type: Sand beach; Sand flat. Slope stability: Unstable, Intermediate, Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Left to Right changes to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Bellingham silty clay loam (108). Bedrock age: Pleistocene. Lithology: Continental sedimentary deposits or rocks.	Reach may contain the following species: sand lance, bald eagle, smelt, rocksole.	Reach may contain the following habitat and site specifics: Eelgrass, shellfish spawning, rearing, and harvesting areas, smelt/sand lance and rocksole spawning beaches. Shoreline vegetation is characterized as fragmented forest due to residential use for entire reach.	residential, undeveloped	RRR 1/5	rural	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are continuous within this reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures and pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	PSNERP Strategies: Beach - Enhance and Restore; Barrier Embayment - Restore; Coastal Inlet - Protect. High: sand bluffs, high bluffs, proximity to streams, overhanging vegetation, long fetch (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation at the far north end of the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.
Nisqually Reach	Nisqually Reach	MNI-15-MNI-16	0.33	Shoreline type: Sand beach. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Stream mouth flows through associated wetland and into a lagoon. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Skipopa silt loam, 0 to 3% slopes (107). Bedrock age: Pleistocene. Lithology: Continental sedimentary	Reach may contain the following species: sand lance, bald eagle	Reach may contain the following habitat and site specifics: wetlands and associated buffers (mid-reach a wetland is associated with the mouth of an unnamed stream as it enters Puget Sound). Reach contains area designated as 100-year floodplain. Aquatic portion of reach contains mapped shellfish spawning, rearing, and harvesting areas. The area surrounding the wetland remains heavily forested and unmodified. The remainder of the reach exhibits forested shoreline in addition to residential	recreation, residential, undeveloped	LDR	rural	The Breachcrest Community Association provides semi-public access (to community members) within the reach to sandy beach	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads are continuous within this reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures and pavement); Water quality: 303(d) list: yes (fecal coliform), contaminated sediments: no, shellfish harvest ratings: open in southern part of reach	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet - None. Low: pre-glacial seds, few landslides, moderate bluff height (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration at the north end of the reach and appropriate for conservation at the south end of the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				deposits or rocks, Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age.		use clearing of shoreline properties.								
Nisqually Reach	Nisqually Reach	MNI-16-MNI-17	0.38	Shoreline type: Sand Beach. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: East side of reach is entrance to tidal inlet/lagoon. Drift cell changes: Yes. Right to Left changes to Undefined when enters inlet. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030). Bedrock age: Pleistocene. Lithology: Continental sedimentary deposits or rocks, Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age.	Reach may contain the following species: sand lance, bald eagle, clams	Reach may contain the following habitat and site specifics: Eelgrass, sand lance spawning beach, shellfish spawning, rearing, and harvesting areas. This reach exhibits forested shoreline in addition to residential use clearing of shoreline properties.	recreational, residential, undeveloped	Residential LAMIRD 1/1	conservancy	The Beachcrest Community and Forest Bay Acres Community Association provide semi-public access (to community members) within the reach to sandy beach	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet - Protect; Delta - Restore. Low: pre-glacial seds, few landslides, moderate bluff height (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation throughout the reach (Squaxin Island Tribe, 2009).	This reach falls entirely within the Nisqually shellfish Protection District.
Nisqually Reach	Nisqually Reach	MNI-17-MNI-18	0.39	Shoreline type: Sand beach. Slope stability: Intermediate, Stable, and Enclosed water. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Three stream mouths flow into a tidal inlet/lagoon. Pocket estuary. Drift cell changes: Yes. Undefined changes to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial drift, Fraser-age.	Reach may contain the following species: bald eagle	Reach may contain the following habitat and site specifics: coastal salt marsh, lagoon, shellfish spawning, rearing, and harvesting areas, waterfowl concentrations. The majority of the shoreline is heavily forested with only one structure and associated cleared space.	residential, undeveloped	RRR 1/5, RR 1/20	conservancy	The western parcel of this reach is owned by the Nisqually Land Trust. Sandy beach access area may not be currently open to the public.	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	None noted	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - Protect; Delta - Restore. Low: pre-glacial seds, few landslides, moderate bluff height (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation in western reach (Squaxin Island Tribe, 2009).	The western parcel of this reach is owned by the Nisqually Land Trust. Sandy beach access area may not be currently open to the public. This reach falls entirely within the Nisqually shellfish Protection District. Private conservation parcels within reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Nisqually Reach	Nisqually Reach	MNI-18-MNI-19	0.16	Shoreline type: Sand beach. Slope stability: Stable, Intermediate, and Modified. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes. Past landslides: No. Surface Hydrology: One stream mouth flows into Nisqually Reach. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial drift, Fraser-age.	Reach may contain the following species: bald eagle	Reach may contain the following habitat and site specifics: This reach contains waterfowl concentrations resulting from non-farmed wetlands and wet pasture lands associated with the Nisqually River Delta, shellfish spawning, rearing, and harvesting areas. There is limited forest cover, due to extensive modification of the shoreline and adjacent lands for residential and other use.	residential, undeveloped, agriculture	RRR 1/5	rural	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (this reach is extensively armored, with a large bulkheaded area in the northwestern portion of the reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: yes (see Notes column) and Nationwide 48 permits, impervious surface: yes (this reach may contain over 30% impervious surfaces); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Aquaculture may result in altered sediment transport, hydrologic regimes and habitat. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - Protect; Delta - Restore. Low: pre-glacial seds, few landslides, moderate bluff height (Herrera and TRPC 2005)	Metadata text indicates that the modified shoreline area is utilized for the oyster industry. This reach falls entirely within the Nisqually shellfish Protection District.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Eld Inlet	Eld Inlet	MEL-00-MEL-01	0.52	Shoreline type: Sand and gravel beach, narrow; Sand and gravel flat or fan; Organics/fines. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, entire reach. Potential Landslide area (>=15% slope): Yes, entire reach. Past landslides: Yes. Surface Hydrology: Stream delta. Pocket estuary. Drift cell changes: Yes. Left to Right changest to Divergence Zone, then to Right to Left, then to Undefined. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Districc Zerochrepts, 60 to 90% slopes (030). Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, bald eagle, sea bird concentrations	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, estuarine zone, patchy, non-floating kelp. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into mostly residential areas. The shoreline exhibits tideflats.	Undeveloped, residential, other-tidelands	RRR 1/5	Rural and Conservancy	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structure, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance High and Enhance; Barrier Embayment - Restore and Protect High; Coastal Inlet - Protect. High: reasoning Gravel and sand, many landslides, high bluffs, mature veg (North half of reach);: High: reasoning Sediment source (South half of reach) (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation in the small portion of reach at entrance to inlet (Squaxin Island Tribe, 2009).	None
Eld Inlet	Eld Inlet	MEL-01-MEL-02	0.76	Shoreline type: Organics/fines. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, entire reach. Potential Landslide area (>=15% slope): Yes, entire reach. Past landslides: Yes. Surface Hydrology: Stream mouth, inlet, estuarine intertidal wetland. Drift cell changes: No change. Undefined drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Districc Zerochrepts, 60 to 90% slopes (030). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, estuarine zone, lagoon. The entire reach is within the 100-year floodplain. Shoreline vegetation is forested. The shoreline exhibits tideflats.	Undeveloped, residential, timber/ forest lands, other-tidelands	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PSNERP Strategies: Beach - None; Barrier Embayment - Protect; Coastal Inlet - Protect. High: reasoning Sediment source. Identified as a site that should be preserved and restored (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009, ranked two sites (Totten Eld Wetland 12 and Totten Eld Riparian 8) in this reach as a low restoration benefit opportunities.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Eld Inlet	Eld Inlet	MEL-02-MEL-03	0.57	Shoreline type: Organics/fines; Sand and gravel flat or fan; Sand and gravel beach, narrow. Slope stability: Unstable, Stable, and Intermediate. Steep slopes (>=40% slope): Yes, in northern section of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: No. Surface Hydrology: Stream delta and inlet mouth in northern reach. Drift cell changes: Yes. Drift changes from Undefined to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, rocksole	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, patchy, non-floating kelp. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into mostly residential areas, with some areas of clearing to the shoreline. The shoreline exhibits tideflats.	Undeveloped, residential, other-tidelands	RRR 1/5	Rural	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads continuous throughout reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structures); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore High; Barrier Embayment - Protect; Coastal Inlet - Protect. High: reasoning Sediment source (North half of reach); Low: reasoning (glacial till), low bluffs, few landslides, little veg (South half of reach) (Herrera and TRPC, 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009).	None
Eld Inlet	Eld Inlet	MEL-03-MEL-04	2.21	Shoreline type: Sand and gravel flat or fan; Sand and gravel beach, narrow; Mud flat. Slope stability: Unstable, Unstable-recent slide, and Intermediate. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: One small associated wetland. Drift cell changes: Yes. Left to Right for majority of reach. Changes to Divergence Zone at far south end of reach. High groundwater hazard: No Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Kapowsin silt loam, 15 to 30% slopes (052), Dystric Xerochrepts, 60 to 90% slopes (030), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial drift, Fraser-age.	Reach may contain the following species: smelt, rocksole	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, patchy, non-floating kelp. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas. The shoreline exhibits tideflats.	Undeveloped, residential, other-tidelands	RRR 1/5	Rural, Conservancy	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads in north half of reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore High; Barrier Embayment - Protect; Coastal Inlet - None. Low: reasoning (glacial till), low bluffs, few landslides, little veg (North half of reach): High: reasoning Glacial till, many landslides, high bluffs, mature vegetation (South half of reach) (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration in portions of the reach (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked six sites (Totten Eld Wetland 25, Totten Eld Riparian 20, 21, 22, 23, and 24) as a low restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Eld Inlet	Eld Inlet	MEL-04-MEL-05	0.37	Shoreline type: Mud flat. Slope stability: Unstable, Unstable-recent slide, and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Divergence Zone change to Right to Left, then to Undefined. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Alderwood gravelly sandy loam, 15 to 30% slopes (003). Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	None noted	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, patchy, non-floating kelp. The entire reach is within the 100-year floodplain. Shoreline vegetation is heavily forested, with no evidence of development. The shoreline exhibits tideflats.	parks	PP and RRR 1/5	Conservancy	Public access within reach: Frye Cove County Park - Walking Access	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Protect; Barrier Embayment - Protect; Coastal Inlet - **None**. High: reasoning Glacial till, many landslides, high bluffs, mature vegetation (Herrera and TRPC 2005). TCGDRS, 2009 ranked a site (Totten Eld Riparian 25) as a moderate restoration benefit.	This reach is made up entirely of Thurston County Parks land.
Eld Inlet	Eld Inlet	MEL-05-MEL-06	0.28	Shoreline type: Mud flat.. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Stream mouth, inlet, estuary. Drift cell changes: No change. Undefined drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Alderwood gravelly sandy loam, 15 to 30% slopes (003). Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age, Continental glacial till, Fraser-age.	Reach may contain the following species: coho salmon	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, estuary, spawning tributary for coho salmon. Shoreline vegetation is heavily forested, with no evidence of development. The shoreline exhibits tideflats.	residential, parks	RRR 1/5	Conservancy	Public access within reach: Frye Cove County Park - Walking Access	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available		PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect. High: reasoning Sediment source (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked a site (Totten Eld Riparian 29) as a moderate restoration benefit.	The northern portion of this reach is owned by Thurston County Parks.
Eld Inlet	Eld Inlet	MEL-06-MEL-07	0.33	Shoreline type: Mud flat.. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Stream mouth, inlet, estuary. Drift cell changes: Yes. Undefined changes to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-	Reach may contain the following species: purple martin, coho salmon	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, estuary, spawning tributary for coho salmon. The entire reach is within the 100-year floodplain. Shoreline vegetation is forested, with little evidence of development or clearing. The shoreline exhibits tideflats.	Residential	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available		PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - Protect. High: reasoning Sediment source (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked a site (Totten Eld Riparian 29) as a moderate restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				age.										
Eld Inlet	Eld Inlet	MEL-07-MEL-08	0.29	Shoreline type: Sand and gravel beach, narrow. Slope stability: Stable and Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Very small inlet. Drift cell changes: Yes. Left to Right changes to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: purple martin	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, patchy, non-floating kelp. The entire reach is within the 100-year floodplain. Shoreline vegetation is shrub and fragmented forest, with evidence of development and clearing for residential use. The shoreline exhibits tideflats.	Residential	RL 1/1	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore and Enhance High; Barrier Embayment - Restore; Coastal Inlet - None. Low: reasoning Glacial till, low bluff, some landslides (Herrera and TRPC 2005)	None
Eld Inlet	Eld Inlet	MEL-08-MEL-09	0.33	Shoreline type: Sand and gravel beach, narrow; Sand Beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Very small inlet at Flapjack Point. Pocket estuary. Drift cell changes: Yes. Divergence Zone changes to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: purple martin, smelt	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, patchy, non-floating kelp . The entire reach is within the 100-year floodplain. Shoreline vegetation is shrub and fragmented forest, with evidence of development and clearing for residential use. The shoreline exhibits tideflats.	Residential	RL 1/1	Rural	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: yes (along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enahance High; Barrier Embayment - Restore; Coastal Inlet - None. Low: reasoning Glacial till, low bluff, some landslides (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon in the far south end of reach (Squaxin Island Tribe, 2009).	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Eld Inlet	Eld Inlet	MEL-09-MEL-10	1.36	Shoreline type: Sand beach and Sand flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Right to Left changes to Left to Right, then to Divergence Zone, then to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Everett very gravelly sandy loam, 30 to 50% slopes (035). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: purple martin, smelt, sand lance, rocksole	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, smelt/sand lance and rocksole spawning beaches. Shoreline vegetation is shrub and fragmented forest, with evidence of development and clearing for residential use. The shoreline exhibits tideflats.	Residential, undeveloped	RL 1/1	Rural	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (6), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Enhance; Coastal Inlet - None. High: reasoning Gravel, high bluffs, many landslides, littoral connection (North portion of reach); High: reasoning Littoral input (South portion of reach) (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon for the entirety of reach and appropriate for restoration (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked a site (Totten Eld Riparian 32) as a low restoration benefit.	None
Eld Inlet	Eld Inlet	MEL-10-MEL-11	0.87	Shoreline type: Sand flat; Mud flat. Slope stability: Unstable only at mouth of inlet. Stable elsewhere. Steep slopes (>=40% slope): Yes, in small areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Three stream mouths flow into inlet. Associated wetland. Drift cell changes: Yes. Right to Left changes to Undefined. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Everett very gravelly sandy loam, 30 to 50% slopes (035), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Skipopa silt loam, 0 to 3% slopes (107), Bellingham silty clay loam (014). Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser, Alluvium.	Reach may contain the following species: smelt, coho salmon.	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, coho salmon tributary, estuary. Shoreline vegetation is shrub and fragmented forest, with evidence of development and clearing for residential use. The shoreline exhibits tideflats.	Residential, undeveloped	RL 1/1	Rural	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (14), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads at mouth of lagoon), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - None; Barrier Embayment - Enhance; Coastal Inlet - Protect High. High: reasoning Littoral input (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation, with a small areas in eastern reach appropriate for restoration (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked a site (Totten Eld Wetland 38) as a low restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Eld Inlet	Eld Inlet	MEL-11-MEL-12	0.65	Shoreline type: Mud flat. Slope stability: Stable. Steep slopes (>=40% slope): Yes, very small areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: One stream mouth in inlet, estuary. Drift cell changes: Yes. Undefined drift changes to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Alderwood gravelly sandy loam, 15 to 30% slopes (003), Skipopa silt loam, 0 to 3% slopes (107), Skipopa silt loam, 3 to 15% slopes (108), Hoogdal silt loam, 15 to 30% slopes (043). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, coho salmon.	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, coho salmon tributary, estuary. Shoreline vegetation is shrub and fragmented forest, with evidence of development and clearing for residential use. The shoreline exhibits tideflats.	Residential, undeveloped	RRR 1/5	Rural and Conservancy	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads at mouth of lagoon), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - None; Barrier Embayment - Enhance; Coastal Inlet - Protect High. High: reasoning Littoral input (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked a site (Totten Eld Riparian 77) as a moderate high restoration benefit.	None
Eld Inlet	Eld Inlet	MEL-12-MEL-13	0.47	Shoreline type: Sand and gravel beach, narrow; Sand flat. Slope stability: Stable. Steep slopes (>=40% slope): Yes, in southern section of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Left to Right changes to Divergence Zone, then to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Skipopa silt loam, 3 to 15% slopes (108), Alderwood gravelly sandy loam, 30 to 50% slopes (004). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: harbor seal, smelt	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, harbor seal haulout. Shoreline vegetation is shrub and fragmented forest, with evidence of development and clearing for residential use. The shoreline exhibits tideflats.	Residential, undeveloped	RRR 1/5	Rural	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (4), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Enhance; Coastal Inlet - None. High: reasoning Littoral input (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked a site (Totten Eld Riparian 78) as a low restoration benefit.	None
Eld Inlet	Eld Inlet	MEL-13-MEL-14	0.35	Shoreline type: Sand flat; Sand beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Stream. Drift cell changes: Yes. Right to Left changes to Left to Right, then to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Alderwood gravelly sandy loam, 3 to 15% slopes (002), Alderwood gravelly sandy loam, 30 to 50% slopes (004), Everett very gravelly sandy loam, 30 to 50% slopes (035). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-	Reach may contain the following species: smelt	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline vegetation is shrub and fragmented forest, with evidence of development and clearing for residential use. The shoreline exhibits tideflats.	Residential, undeveloped	RRR 1/5	Rural	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - None; Coastal Inlet - None. High: reasoning Vashon outwash - glacial sand and gravel, large scale landslides, (Herrera and TRPC 2005). TCGDRS, 2009 ranked a site (Totten Eld Riparian 78) as a low restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				age, Continental glacial drift, Fraser-age.										
Eld Inlet	Eld Inlet	MEL-14-MEL-15	0.50	Shoreline type: Sand beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Divergence Zone changes to Right to Left, then to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Everett very gravelly sandy loam, 30 to 50% slopes (035). Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age.	Reach may contain the following species: smelt	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. Shoreline vegetation is shrub and fragmented forest, with evidence of development and clearing for residential use. The shoreline exhibits tideflats.	Residential and undeveloped land	RL 1/1	Rural	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enahance; Barrier Embayment - None; Coastal Inlet - None. High: reasoning Vashon outwash - glacial sand and gravel, large scale landslides, (Herrera and TRPC 2005)	None
Eld Inlet	Eld Inlet	MEL-15-MEL-16	2.18	Shoreline type: Sand beach; Sand flat. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes, in areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Two streams, small inlet with stream delta, Pocket estuary. Drift cell changes: Yes. Left to Right for majority of reach, changes to No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Everett very gravelly sandy loam, 30 to 50% slopes (035), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Kapowsin silt loam, 30 to 50% slopes (053), Everett very gravelly sandy loam, 3 to 15% slopes (033), Everett very gravelly sandy loam, 15 to 30% slopes (034), Kapowsin silt loam, 15 to 30% slopes (052), Skipopa silt loam, 3 to 15% slopes (108), Dystric Xerochrepts, 60 to 90% slopes (030). Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age, Advance continental glacial outwash, Fraser-age.	Reach may contain the following species: smelt, rock sole, purple martin	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, pocket estuary, estuarine intertidal wetland. Shoreline vegetation is shrub and fragmented forest, with evidence of development and clearing for residential use. The shoreline exhibits tideflats.	Residential and undeveloped land	RL 1/1	Rural	None noted	Modifications: piers/docks/boat ramps: yes (10), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Water quality within this reach is impacted (Ecology 303d list).	PSNERP Strategies: Beach - Enahance; Barrier Embayment - Restore; Coastal Inlet - Protect. Low: reasoning (glacial till), low bluffs (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked two sites (Totten Eld Riparian 80 and 82) as low restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Eld Inlet	Eld Inlet	MEL-16-MEL-17	1.07	Shoreline type: Sand beach. Slope stability: Unstable, Intermediate, and Stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: One stream mouth. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: Yes, in southern section of reach. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 30 to 50% slopes (053), Kapowsin silt loam, 15 to 30% slopes (052), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene and Holocene. Lithology: Continental glacial till, Fraser-age, Advance continental glacial outwash, Fraser-age, Alluvium.	Reach may contain the following species: smelt, shorebirds	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, shorebird concentrations, intertidal estuarine wetland. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas. The shoreline exhibits tideflats.	Residential, undeveloped	RL 1/1	Rural	None noted	Modifications: piers/docks/boat ramps: yes (11), groins/jetties: no, culverts: no, dams: no, armoring: yes (along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: yes (per aerial photograph), impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Aquaculture may result in altered sediment transport, hydrologic regimes and habitat.	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. Low: reasoning (glacial till), low bluffs, (Herrera and TRPC 2005)	The aerial photograph indicates use of tidelands for aquaculture.
Eld Inlet	Eld Inlet	MEL-17-MEL-18	0.51	Shoreline type: Sand beach; Mud flat. Slope stability: Stable and Modified. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes. Past landslides: No. Surface Hydrology: No. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Everett very gravelly sandy loam, 3 to 15% slopes (033). Bedrock age: Holocene. Lithology: Alluvium.	None noted	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, shorebird concentrations, estuarine intertidal wetland. Shoreline vegetation is mostly forested, with limited clearing for residential use. The shoreline exhibits tideflats.	Residential, undeveloped	RRR 1/5	Rural	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	None noted	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. Low: reasoning (glacial till), low bluffs, (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009).	None
Perry Creek	Eld Inlet	MEL-18-MEL-19	0.89	Shoreline type: Mud flat. Slope stability: Modified, Intermediate, Stable, and Unstable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: No. Surface Hydrology: Inlet. Associated Palustrine and Estuarine wetlands. Drift cell changes: No change. No Appreciable Drift. High groundwater hazard: No. Limited groundwater concern: Yes. Hydric soils: No. Soil Names: Everett very gravelly sandy loam, 3 to 15% slopes (033), Giles silt loam, 0 to 3% slopes, Sulton silt loam (115), Dystric Xerochrepts, 60 to 90% slopes (030), Yelm fine sandy loam, 15 to 30% slopes (128). Bedrock age: Holocene and Pleistocene.	Reach may contain the following species: Searun Cutthroat Trout, chum salmon, coho salmon	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, saltwater wetlands, estuary, shorebird concentrations. Shoreline vegetation is comprised of trees and shrubs that extend upslope from tideflats. Some areas of residential use/clearing are noted adjacent to inlet (Perry Creek).	Residential, undeveloped	RRR 1/5	Rural	Public access within the reach: roads and bridges (Madrona Beach Rd NW with bridge over Oyster Bay, Hwy 101 with bridge over Oyster Bay)	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: yes (2), bridges: yes (2 bridges cross the inlet within this reach, associated with Madrona Beach Rd NW and US Hwy 101), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (pavement) Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. Low: reasoning (glacial till), low bluffs (Herrera and TRPC, 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked three sites (Totten Eld Wetland 221 and 222 and Totten Eld Riparian 85) as low restoration benefit.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				Lithology: Alluvium, Continental glacial outwash, Fraser-age.								undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.		
Eld Inlet	Eld Inlet	MSQ-05-MEL-00	0.35	Shoreline type: Sand and gravel beach, narrow. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Distric Zerochrepts, 60 to 90% slopes (030). Bedrock age: Pleistocene. Lithology: Continental glacial drift, Fraser-age, Continental sedimentary deposits or rocks.	Reach may contain the following species: bald eagle, smelt, rocksole	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline vegetation is forested up to the tideflats.	Undeveloped, residential, other-tidelands	RRR 1/5	Rural, conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - None. High: reasoning Gravel and sand, many landslides, high bluffs, mature veg (Herrera and TRPC 2005)	None
Squaxin Passage	Squaxin Passage	MSQ-00-MSQ-01	0.29	Shoreline type: Sand beach. Slope stability: Unstable and stable. Steep slopes (>=40% slope): Yes, primarily northern reach. Potential Landslide area (>=15% slope): Yes, entire reach. Past landslides: No. Surface Hydrology: Island. Sand spit. Drift cell changes: Yes. Left to Right changes to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: herring, purple martin, smelt, rocksole, bald eagle.	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. Shoreline vegetation is largely residential plantings in a highly modified environment.	Undeveloped, residential, recreation	RL 2/1	Rural	Public access within the reach: roads (Steamboat Island Lp NW)	Modifications: piers/docks/boat ramps: yes (1), grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along reach), Facilities: roads: yes (1), bridges: yes (associated with Steamboat Island Lp NW), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (this reach may exceed 30% impervious surface); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding. Impervious surfaces >10% may	PSNERP Strategies: Beach - Enhance; Barrier Embayment - None; Coastal Inlet - None. High: reasoning Glacial till, moderate bluff, aspect - north, long fetch, (very few trees) (Herrera and TRPC 2005)	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
												affect surface water flow, groundwater infiltration, aquifer recharge and nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.		
Squaxin Passage	Squaxin Passage	MSQ-00-MSQ-02	0.14	Shoreline type: Sand Beach. Slope stability: Unstable and stable. Steep slopes (>=40% slope): Yes, very small area in southern reach. Potential Landslide area (>=15% slope): Yes, primarily in southern reach. Past landslides: No. Surface Hydrology: Northern reach is sand spit between mainland and Steamboat island. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Kapowsin silt loam, 15 to 30% slopes (052). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental sedimentary deposits or rocks, Continental glacial till, Fraser-age.	Reach may contain the following species: herring, smelt, rocksole, sandlance, purple martin, bald eagle	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. Shoreline vegetation is largely residential plantings and clearings in a highly modified environment.	Undeveloped, residential, parks	RL 2/1	Rural	Public access within the reach: Steamboat Island Bridge which is on a public road (Steamboat Island Lp NW), Carlyon Beach Country Club - privately owned community beach and marina.	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along reach), Facilities: roads: yes (1), bridges: yes (associated with Steamboat Island Lp NW), railroads: no, marinas: yes (1), utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structure, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Ports or marinas may have an impact on water quality and alter hydrologic/sediment transport. Result in aquatic and nearshore loss of habitat.Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - None; Coastal Inlet - None. High: reasoning Glacial till, moderate bluff, aspect - north, long fetch, (very few trees) (Herrera and TRPC 2005)	None
Squaxin Passage	Squaxin Passage	MSQ-01-MSQ-00	0.24	Shoreline type: Sand beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, primarily northern reach. Potential Landslide area (>=15% slope): Yes, entire reach. Past landslides: Yes. Surface Hydrology: Island. Drift cell changes: Yes. Divergence Zone changes to Right to Left, then to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	Reach may contain the following species: herring, purple martin	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. Shoreline vegetation is largely residential plantings in a highly modified environment.	Undeveloped, residential	RL 2/1	Rural	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (4), groins/jetties: no, culverts: no, dams: no, armoring: yes (along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (this reach may exceed 30% impervious surface); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Impervious surfaces > 10% may affect surface water flow, groundwater infiltration, aquifer recharge and	PSNERP Strategies: Beach - Enhance; Barrier Embayment - None; Coastal Inlet - None. High: reasoning Glacial till, moderate bluff, aspect - north, long fetch, (very few trees) (Herrera and TRPC 2005)	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
												nutrient/contaminant removal. May include impacts to: flooding, water quality/quantity, and flow energy, habitat, headwater input, and water temperatures.		
Squaxin Passage	Squaxin Passage	MSQ-02-MSQ-03	0.55	Shoreline type: Sand beach and Sand flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Inlet in southern reach. Drift cell changes: Yes. Left to Right changes to Divergence Zone, then to Right to Left, then to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Kapowsin silt loam, 15 to 30% slopes (052). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: sandlance, herring, rocksole, bald eagle	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, sandlance spawning areas, rocksole spawning areas. Shoreline vegetation is largely residential plantings with a few stands of fragmented forest.	Undeveloped, residential	RL 2/1	Rural	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (5), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: prohibited	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance; Barrier Embayment - Restore; Coastal Inlet - Restore. High: reasoning Glacial till, moderate bluff, aspect - north, long fetch, (very few trees) (Herrera and TRPC 2005)	None
Squaxin Passage	Squaxin Passage	MSQ-03-MSQ-04	0.60	Shoreline type: Sand beach. Slope stability: Unstable and Unstable-recent slide. Steep slopes (>=40% slope): Yes, southern half of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 15 to 30% slopes (052), Distric Zerochrepts, 60 to 90% slopes (030), Indianola loamy sand, 15 to 30% slopes (048). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial drift, Fraser-age.	Reach may contain the following species: smelt, sandlance, herring	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, smelt/sandlance potential spawning beaches. Shoreline vegetation is mostly forested with areas of residential plantings on the shoreline in the western portion of the reach.	Undeveloped, residential	RRR 1/5	Rural, Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (2), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: Closed - pollution	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - Restore. High: reasoning Glacial till, moderate bluff, aspect - north, long fetch, (very few trees) - (North part of reach); High: reasoning Very large landslide deposit (South portion of reach) (Herrera and TRPC 2005)	An undefined preservation site resttoration, large) is noted in the reach.
Squaxin Passage	Squaxin Passage	MSQ-04-MSQ-05	1.30	Shoreline type: Sand beach; Sand flat; Sand and gravel beach, narrow. Slope stability: Unstable and Unstable-recent slide. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Unnamed stream drains to Hunter Point/Eld Inlet. Drift cell changes: No change. Left to	Reach may contain the following species: smelt, rocksole, herring, sandlance, bald eagle.	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, smelt/sandlance potential spawning areas, rocksole potential spawning areas. Shoreline vegetation alternates between mostly forested and areas of residential clearing on the	Undeveloped, residential	RRR 1/5	Rural and Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (12), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permits, impervious surface: no; Water	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring	PSNERP Strategies: Beach - Enhance High; Barrier Embayment - Restore; Coastal Inlet - None. High: reasoning Very large landslide deposit (North half of reach); High: reasoning Gravel and sand, many landslides, high	An undefined preservation site prservation, large) is noted in the reach.

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051),Distric Zerochrepts, 60 to 90% slopes (030), Indianola loamy sand, 15 to 30% slopes (048), Alderwood gravelly sandy loam, 15 to 30% slopes (003). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial drift, Fraser-age, Continental sedimentary deposits or rocks.		shoreline.					quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	bluffs, mature veg (South half of reach) (Herrera and TRPC, 2005). Identified as beneficial to all juvenile salmon and appropriate for restoration in southern half of reach (Squaxin Island Tribe, 2009). TCGDRS, 2009 ranked two sites (Totten Eld Riparian 17 and 13) in this reach as a low restoration benefit opportunities.	
Squaxin Passage	Squaxin Passage	MTO-23-MSQ-00	0.09	Shoreline type: Sand beach. Slope stability: Unstable and stable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes, small areas. Past landslides: No. Surface Hydrology: Mainland foreland and sand spit to Steamboat Island. Drift cell changes: Yes. Right to Left changes to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental sedimentary deposits or rocks, Continental glacial till, Fraser-age.	Reach may contain the following species: sandlance, smelt, rocksole,	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. Shoreline vegetation is sparse shrub-scrub.	Undeveloped, residential	RL 2/1	Rural	Public access within reach: Steamboat Island Bridge which is on a public road (Steamboat Island Lp NW); Carlyon Beach Country Club - privately owned community beach.	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along reach), Facilities: roads: yes (1), bridges: yes (associated with Steamboat Island Lp NW), railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structure, pavement); Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Roads within associated wetlands may result in habitat fragmentation and altered hydrologic transport. Roads within the floodplain may result in reduced or altered floodplain connectivity, and floodplain capacity. Bridges may alter water/sediment transport. Impacts include effects to water velocity and development of habitat features (pools/riffles/gravel bars). If undersized, impacts may include: increased water velocity, incised channels, erosion, road washouts, and downstream flooding.	PSNERP Strategies: Beach - Restore and enhance; Barrier Embayment - Restore; Coastal Inlet - None. High: reasoning Glacial till, moderate bluff, aspect - north, long fetch, (very few trees) (Herrera and TRPC, 2005)	None
Totten Inlet	Totten Inlet	MTO-00-MTO-01	0.27	Shoreline type: Mud flat. Slope stability: Unstable and stable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes. Past landslides: Yes. Surface Hydrology: Estuary and estuarine wetland. Drift cell changes: No changes. No appreciable drift. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Kapowsin silt loam, 30 to 50% slopes (053). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, shorebird and waterfowl concentrations. Wetlands and associated buffers are present near the south end of the reach. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped areas. The shoreline exhibits tideflats.	Undeveloped land	PP	Conservancy	Kennedy Creek Tidelands. Entire reach owned by DNR with known public access.	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (south end of reach contains bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect High. High: reasoning Vashon till and landslide deposits, High-moderate bluffs, frequent landslides, (muddy) (Herrera and TRPC 2005)	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Totten Inlet	Totten Inlet	MTO-01-MTO-02	0.40	Shoreline type: Mud flat. Slope stability: Primarily stable, with a very small area mapped as unstable. Steep slopes (>=40% slope): Yes, extremely small area. Potential Landslide area (>=15% slope): Yes, througout reach. Past landslides: Yes. Surface Hydrology: Estuary. Drift cell changes: No appreciable drift to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas. The shoreline exhibits tideflats.	Undeveloped and residential land	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	None noted	PSNERP Strategies: Beach - Restore High; Barrier Embayment - Restore; Coastal Inlet - Protect High. High: reasoning Vashon till and landslide deposits, High-moderate bluffs, frequent landslides, (muddy), (Herrera and TRPC 2005)	None
Totten Inlet	Totten Inlet	MTO-02-MTO-03	0.80	Shoreline type: Mud flat and Sand Beach Slope stability: Unstable slopes for majority of reach. Small area stable. Steep slopes (>=40% slope): Yes, large areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Estuary Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Kapowsin silt loam, 30 to 50% slopes (053), Skipopa silt loam, 3 to 15% slopes (108), Dystric Xerochrepts, 60 to 90% slopes. Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age.	None noted	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into largely undeveloped areas. The shoreline exhibits tideflats.	Undeveloped and residential land	RRR 1/5 and RL 1/1 (north end of reach)	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (south end of reach contains bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore High; Barrier Embayment - Restore; Coastal Inlet - None. High: reasoning Vashon till and landslide deposits, High-moderate bluffs, frequent landslides, (muddy) (Herrera and TRPC 2005)	None
Totten Inlet	Totten Inlet	MTO-03-MTO-04	0.85	Shoreline type: Sand Beach and Mud Flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, large areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Estuarine wetland. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial till, Fraser-age, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, wetlands and associated buffers (near the south end of the reach). The entire reach is within the 100 yr floodplain Shoreline vegetation is comprised of trees and shrubs that extend upslope into mostly residential areas. The shoreline exhibits tideflats.	Undeveloped and residential land	RL 1/1	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), grois/jetties: no, culverts: no, dams: no, armoring: yes (contains bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (bacteria), contaminated sediments: no, shellfish harvest ratings: no data available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore High; Barrier Embayment - Restore; Coastal Inlet - Restore. High: reasoning Vashon till and landslide deposits, High-moderate bluffs, frequent landslides, (muddy) (Herrera and TRPC 2005)	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Burns	Totten Inlet	MTO-04-MTO-05	0.14	Shoreline type: Mud Flat. Slope stability: Unstable. Steep slopes (>=40% slope): No. Potential Landslide area (>=15% slope): Yes. Past landslides: No. Surface Hydrology: Inlet within Totten Inlet. Pocket estuary. Intertidal estuarine wetland. Drift cell changes: Yes. Right to Left changes to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Skipopa silt loam, 0 to 3% slopes (107), Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	None noted	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas. The shoreline exhibits tideflats.	Undeveloped, residential	RL 1/1	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (3), grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (bacteria), contaminated sediments: no, shellfish harvest ratings: no data available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	PSNERP Strategies: Beach - Restore High; Barrier Embayment - Restore; Coastal Inlet - Restore. Low: reasoning Low bluff, few landslides (no geology data) (Herrera and TRPC 2005)	None
Totten Inlet	Totten Inlet	MTO-05-MTO-06	0.24	Shoreline type: Mud flat. Slope stability: Unstable and stable. Steep slopes (>=40% slope): Yes. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: No. Surface Hydrology: None. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	None noted	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into largely residential areas, with some clearing. The shoreline exhibits tideflats.	Undeveloped, residential land, tidelands	RL 1/1,RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: yes (bacteria), contaminated sediments: no, shellfish harvest ratings: no data available	Loss of vegetative cover may alter hydrology and sediment processes.	PSNERP Strategies: Beach - Restore; Barrier Embayment - None; Coastal Inlet - Restore. Low: reasoning Low bluff, few landslides (no geology data) (Herrera and TRPC 2005)	None
Pierre	Totten Inlet	MTO-06-MTO-07	0.12	Shoreline type: Mud flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: No. Surface Hydrology: Inlet within Totten Inlet. Intertidal estuarine wetland. Drift cell changes: No change. Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Bellingham silty clay loam (014). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	None noted	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope with some clearing for residential development.	Residential	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available		PSNERP Strategies: Beach - Restore; Barrier Embayment - None; Coastal Inlet - Protect. Low: reasoning Low bluff, few landslides (no geology data) (Herrera and TRPC 2005). TCGDRS 2009 ranked a wetland site in this reach (Site_Id = Totten Eld Wetland 132) as a low restoration benefit opportunity.	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Totten Inlet	Totten Inlet	MTO-07-MTO-08	0.91	Shoreline type: Mud flat and Sand flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, large areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Unnamed stream flows into Totten Inlet. Drift cell changes: Yes. Left to Right changes to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin sitl loam, 15 to 30% slopes (052), Alderwood gravelly snady loam, 3 to 15% slopes (002). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental sedimentary deposits or rocks.	Reach may contain the following species: smelt, bald eagle	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas. The shoreline exhibits tideflats.	Undeveloped, residential	RRR 1/5	Conservancy	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (2), grois/jetties: no, culverts: no, dams: no, armoring: yes (reach contains bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: data not available	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore and Protect High; Barrier Embayment - Restore; Coastal Inlet - Protect. Low: reasoning Low bluff, few landslides (no geology data) (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation in northern reach near MTO-08 reach break (Squaxin Island Tribe, 2009). TCGDRS 2009 ranked a riparian area (Site_Id = Totten Eld Riparian 54) in this reach as a low restoration benefit opportunity.	None
Totten Inlet	Totten Inlet	MTO-08-MTO-09	0.42	Shoreline type: Sand flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes, from Divergence Zone to Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin sitl loam, 0 to 3% slopes (052). Bedrock age: Pleistocene. Lithology: Continental sedimentary deposits or rocks, Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, bald eagle	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline is heavily forested.	Undeveloped, residential, timber/forest land	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: yes (reach contains bulkheads), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no; Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PSNERP Strategies: Beach - Protect High; Barrier Embayment - Restore; Coastal Inlet - None. Low: reasoning Low bluff, few landslides (no geology data) (Herrera and TRPC 2005)	None
Totten Inlet	Totten Inlet	MTO-09-MTO-10	0.17	Shoreline type: Sand flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin sitl loam, 0 to 3% slopes (052). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, bald eagle	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas. The shoreline exhibits tideflats.	Undeveloped and residential land	PP and RRR 1/5	Rural	Louis H. Meyers Park (undeveloped) is government owned land with no known public access.	Modifications: piers/docks/boat ramps: no, grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	None noted	PSNERP Strategies: Beach - Protect High; Barrier Embayment - Restore; Coastal Inlet - None. Unknown - Park (Herrera and TRPC 2005)	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Totten Inlet	Totten Inlet	MTO-10-MTO-11	0.33	Shoreline type: Sand flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Stream mouth. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Alderwood gravelly sandy loam, 3 to 15% slopes (002). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, bald eagle	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. Foraging fish areas. Shoreline vegetation appears heavily forested in areas without development on the tidelands.	Agriculture	RRR 1/5	Rural	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (1), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no (see Notes column), aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Protect High; Barrier Embayment - Restore; Coastal Inlet - None. High: reasoning Landslide deposits, many landslides, high bluffs, mature vegetation (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009, ranked a riparian area (Site_Id = Totten Eld Riparian 52) in this reach as a low restoration benefit opportunity.	Aerial photograph indicates aquaculture use within this reach.
Totten Inlet	Totten Inlet	MTO-11-MTO-12	0.97	Shoreline type: Sand flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Small inlet in northern section of reach. Pocket estuary. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Alderwood gravelly sandy loam, 3 to 15% slopes (002), Skipopa silt loam, 0 to 3% slopes, Kapowsin silt loam, 0 to 3% slopes. Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age, Continental sedimentary deposits or rocks.	Reach may contain the following species: smelt	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, and foraging fish areas.Shoreline vegetation appears heavily forested.	Undeveloped, residential	RRR 1/5	Conservancy	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: yes (7), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads area near north end of reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Protect High; Barrier Embayment - Restore; Coastal Inlet - Restore. High: reasoning2 Landslide deposits, many landslides, high bluffs, mature vegetation (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009). TCGDRS, 2009, ranked a riparian area (Site_Id = Totten Eld Riparian 34) in this reach as a low restoration benefit opportunity.	None
Totten Inlet	Totten Inlet	MTO-12-MTO-13	0.90	Shoreline type: Sand flat and Organics/fines. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, south of the inlet. Potential Landslide area (>=15% slope): Yes, much of reach. Past landslides: Yes. Surface Hydrology: Inlet. Associated wetland. Drift cell changes: Yes. Right to Left to Left to Right then to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to	Reach may contain the following species: smelt	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, seal and sea lion haulout area, pocket estuary, wetlands and associated buffers. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped forest. The shoreline exhibits tideflats.	Undeveloped, residential, timber/forest land	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PSNERP Strategies: Beach - Protect High and Protect; Barrier Embayment - Restore and Protect High; Coastal Inlet - Protect. High: reasoning Landslide deposits, many landslides, high bluffs, mature vegetation (Herrera and TRPC 2005). Identified as beneficial to all juvenile salmon and appropriate for conservation (Squaxin Island Tribe, 2009).	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				3% slopes (107). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental sedimentary deposits or rocks.									TCGDRS, 2009, ranked four natural resource sites overall in this reach, two riparian areas (Site_Id = Totten Eld Riparian 35 and 36) and two wetland areas (Totten Eld Wetland 157 and 92) in this reach as low restoration benefit opportunities.	
Totten Inlet	Totten Inlet	MTO-13-MTO-14	0.87	Shoreline type: Sand flat and Sand Beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, much of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: Yes. Divergence Zone changes to Right to Left then to Left to Right. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 0 to 3% slopes (107), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser.	Reach may contain the following species: smelt, rock sole	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, patchy, non-floating kelp. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into forest. The shoreline exhibits tideflats.	Undeveloped, residential, timber/forest land	RRR 1/5 and RL 1/1	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads near north end of reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PSNERP Strategies: Beach - Protect; Barrier Embayment - Restore; Coastal Inlet - None. High: reasoning Landslide deposits, glacial till, deep seated landslides, (moderate to low bluff) (Herrera and TRPC 2005)	None
Totten Inlet	Totten Inlet	MTO-14-MTO-15	0.78	Shoreline type: Sand beach and sand flat. Slope stability: Unstable and Stable. Steep slopes (>=40% slope): Yes, large areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Estuarine wetlands mapped in reach. Drift cell changes: Yes. Left to Right changes to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Skipopa silt loam, 3 to 15% slopes (108), Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Continental glacial drift, pre-Fraser, Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, herring	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, wetlands, patchy, non-floating kelp. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas. The shoreline exhibits tideflats.	Undeveloped, residential	RRR 1/5 and RL 1/1	Conservancy, rural	None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None. High: reasoning Landslide deposits, glacial till, deep seated landslides, (moderate to low bluff) (Herrera and TRPC 2005)	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
Totten Inlet	Totten Inlet	MTO-15-MTO-16	0.79	Shoreline type: Sand flat and Mud flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, large areas. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Estuarine wetland at northern point and inside inlet. Inlet is Gallagher Cove. Drift cell changes: Yes. Divergence zone changes to Right to Left, then to Undefined. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Skipopa silt loam, 3 to 15% slopes (108), Skipopa silt loam, 0 to 3% slopes (107), Distric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 0 to 3% slopes (050). Bedrock age: Pleistocene. Lithology: Advance continental glacial outwash, Fraser-age, Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, herring	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, wetlands. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas. The shoreline exhibits tideflats.	Undeveloped, residential	RL 1/1	Rural	None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - Protect. High: reasoning Landslides deposits, landslides, moderate bluff height, vegetation, sediment source? (Herrera and TRPC 2005)	None
Totten Inlet	Totten Inlet	MTO-16-MTO-17	0.64	Shoreline type: Mud flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, small areas. Potential Landslide area (>=15% slope): Yes, throughout reach. Past landslides: Yes. Surface Hydrology: Estuarine wetlands. Inlet is Gallagher Cove. Drift cell changes: No change. Undefined. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051), Alderwood gravelly sandy loam, 15 to 30% slopes (003), Indianola loamy sand, 15 to 30% slopes (048). Bedrock age: Pleistocene. Lithology: Advance continental glacial outwash, Fraser-age.	None noted	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, wetlands. The entire reach is within the 100-year floodplain. Shoreline vegetation is mostly forested, with some areas of clearing. The shoreline exhibits tideflats.	Undeveloped, residential, timber/forest land	RRR 1/5	Conservancy, rural	None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift. Timber or forestry related uses may alter hydrology and sediment processes due to loss of vegetative cover.	PSNERP Strategies: Beach - None; Barrier Embayment - Restore; Coastal Inlet - Protect. High: reasoning Landslides deposits, landslides, moderate bluff height, vegetation, sediment source (Herrera and TRPC, 2005). TCGDRS, 2009, ranked a riparian site in this reach (Site_Id = Totten Eld Riparian 37) as a low restoration benefit opportunity.	None
Totten Inlet	Totten Inlet	MTO-17-MTO-18	0.59	Shoreline type: Mud flat. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, a large area in northern part of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Estuarine wetlands. Inlet is Gallagher Cove. Drift cell changes: Yes. Changes to Left to Right, then to Divergence zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to	Reach may contain the following species: herring	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, wetlands, seal and sea lion haulouts. Shoreline vegetation is mostly forested, with some areas of clearing. The shoreline exhibits tideflats.	Undeveloped, residential	RRR 1/5	Conservancy, rural	None noted	Modifications: piers/docks/boat ramps: yes (3), groins/jetties: no, culverts: no, dams: no, armoring: yes (along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - Protect. High: reasoning Landslides deposits, landslides, moderate bluff height, vegetation, sediment source? (Herrera and TRPC, 2005). TCGDRS, 2009, ranked a wetland site (Totten Eld Wetland 26) in this reach as low	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051), Indianola loamy sand, 15 to 30% slopes (048). Bedrock age: Pleistocene. Lithology: Advance continental glacial outwash, Fraser-age.								migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	restoration benefit opportunity.	
Totten Inlet	Totten Inlet	MTO-18-MTO-19	0.33	Shoreline type: Mud flat and Sand flat. Slope stability: Unstable, Stable, and Intermediate. Steep slopes (>=40% slope): Yes, on south side of inlet. Potential Landslide area (>=15% slope): Yes, around inlet. Past landslides: Yes. Surface Hydrology: Inlet. Pocket estuary. Intertidal estuarine wetland. Drift cell changes: Yes. Changes from Divergence Zone to Right to Left, then to Left to Right, then to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Dystric Xerochrepts, 60 to 90% slopes (030), Kapowsin silt loam, 3 to 15% slopes (051), Skipopa silt loam, 0 to 3% slopes (107). Bedrock age: Pleistocene. Lithology: Advance continental glacial outwash, Fraser-age.	Reach may contain the following species: herring	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas. The shoreline exhibits tideflats.	Undeveloped, residential	RRR 1/5	Rural	None noted	Modifications: piers/docks/boat ramps: yes (1), grois/jetties: no, culverts: no, dams: no, armoring: no, Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect; Coastal Inlet - None. Low: reasoning (glacial till), low bluff, (Herrera and TRPC 2005)	None
Totten Inlet	Totten Inlet	MTO-19 - MTO-20	0.63	Shoreline type: Sand beach and Sand flat. Slope stability: Intermediate, Unstable, and Stable. Steep slopes (>=40% slope): Yes, in southern half of reach. Potential Landslide area (>=15% slope): Yes, more in southern half of reach. Past landslides: Yes, southern half of reach. Surface Hydrology: Inlet. Associated wetland in northern half of reach. Pocket estuary. Drift cell changes: Yes. Changes from Divergence Zone to Right to Left, then to Left to Right, then to Divergence Zone. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes, in northern half of reach. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Kapowsin silt loam, 15 to 30% slopes (052), Bellingham silty clay loam (014). Bedrock age: Pleistocene. Lithology: Advance continental glacial outwash, Fraser-age.	Reach may contain the following species: herring, smelt	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, estuary, seal and sealion haulouts. TShoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas.	Undeveloped, residential	RRR 1/5	Rural	None noted	Modifications: piers/docks/boat ramps: yes (4), grois/jetties: no, culverts: no, dams: no, armoring: yes (along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Protect and Restore; Coastal Inlet - None. Low: reasoning (glacial till), low bluff (Herrera and TRPC, 2005). TCGDRS, 2009 ranked a site (Totten Eld Wetland 20) in this reach as low restoration benefit opportuntiy.	None
Totten Inlet	Totten Inlet	MTO-20-MTO-21	0.30	Shoreline type: Sand beach and Sand flat. Slope stability: Stable and Unstable. Steep slopes (>=40% slope): Yes, in northern half. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: None Drift cell changes: Yes. Changes from Divergence zone to Right to Left.	Reach may contain the following species: herring, smelt, sandlance	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, estuary. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and	Residential	RRR 1/5	Rural and Conservancy	None noted	Modifications: piers/docks/boat ramps: yes (1), grois/jetties: no, culverts: no, dams: no, armoring: yes (bulkheads along majority of reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: yes (structure); Water	Piers, docks, or boat ramps may alter hydrologic/ sediment transport and shoreline habitat components (e.g., light, vegetation). May include impacts to: beach sediment size/ type/ abundance, flow energy, water quality, drift material accumulation, erosion on adjacent properties, and habitat	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None. Low: reasoning (glacial till), low bluff (Herrera and TRPC, 2005)	None

Basin Name	Waterbody Name	Reach ID	Designated Shoreline Length (mi)	Physical Features	Species	Habitats and Site Specifics	Land	Zoning	Current SMP	Public Access Sites	Shoreline Structures and Modifications	Functions that may be Impacted	Opportunities for Protection and Restoration	Notes
				High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: No. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051). Bedrock age: Pleistocene. Lithology: Advance continental glacial outwash, Fraser-age.		residential areas.					quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	modification. Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.		
Totten Inlet	Totten Inlet	MTO-21-MTO-22	1.55	Shoreline type: Sand flat and Sand beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, majority of reach. Past landslides: Yes. Surface Hydrology: Inlet in southern reach. Pocket estuary. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Dystric Xerochrepts, 60 to 90% slopesKapowsin silt loam, 15 to 30% slopes (052), Bellingham silty clay loam (014). Bedrock age: Lithology:	Reach may contain the following species: smelt, sandlance, rocksole	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, estuary, patchy, non-floating kelp. The entire reach is within the 100-year floodplain. Shoreline vegetation is mostly forested, with few areas of modification or clearing for residential use.	Undeveloped, residential	RRR 1/5	Conservancy	None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: no, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None. High: reasoning (pre-glacial) Gravel and sand, very high bluff, many landslides, vegetation (South half of reach); Low: reasoning (Pre-glacial, few landslides (North half of reach) (Herrera and TRPC 2005). TCGDRS, 2009 ranked a site (Totten Eld Wetland 18) in this reach as a low restoration benefit opportunity.	None
Totten Inlet	Totten Inlet	MTO-22-MTO-23	0.75	Shoreline type: Sand Beach. Slope stability: Unstable. Steep slopes (>=40% slope): Yes, majority of reach. Potential Landslide area (>=15% slope): Yes, througout reach. Past landslides: Yes. Surface Hydrology: None. Drift cell changes: No change. Right to Left. High groundwater hazard: No. Limited groundwater concern: No. Hydric soils: Yes. Soil Names: Kapowsin silt loam, 3 to 15% slopes (051), Dystric Xerochrepts, 60 to 90% slopesKapowsin silt loam, 15 to 30% slopes (052), Bellingham silty clay loam (014). Bedrock age: Pleistocene. Lithology: Continental sedimentary deposits or rocks, Continental glacial till, Fraser-age.	Reach may contain the following species: smelt, sandlance, purple martin, rocksole	Reach may contain the following habitats: shellfish spawning, rearing and harvesting areas, estuary. The entire reach is within the 100-year floodplain. Shoreline vegetation is comprised of trees and shrubs that extend upslope into undeveloped and residential areas.	Undeveloped, residential	RL 2/1	Rural	Public access within the reach: None noted	Modifications: piers/docks/boat ramps: no, groins/jetties: no, culverts: no, dams: no, armoring: yes (along reach), Facilities: roads: no, bridges: no, railroads: no, marinas: no, utilities: no); Adjacent land uses: agriculture: no, aquaculture: yes, Nationwide 48 permit, impervious surface: no; Water quality: 303(d) list: no, contaminated sediments: no, shellfish harvest ratings: open	Shoreline armoring may alter hydrologic/sediment transport. May include impacts to: water quality, beach scouring/lowering, erosion, fish migration, beach sediment size/type/abundance, drift material accumulation, habitat, wave energy, shoreline hydrodynamics, and drift.	PSNERP Strategies: Beach - Restore; Barrier Embayment - Restore; Coastal Inlet - None. Low: reasoning (Pre-glacial, few landslides (South half of reach); High: reasoning Glacial till, moderate bluff, aspect - north, long fetch, (very few trees) (North half of reach) (Herrera and TRPC 2005)	None